CALTCM 2017

Quality Through Best Practices

Promoting quality patient care through medical leadership and education

April 28-29, 2017

Omni Los Angeles Hotel at California Plaza
Los Angeles, CA

CALTCM
California Association of Long Term Care Medicine

CALTCM 43rd Annual Meeting
Quality Through Best Practices
April 28-29, 2017

Program Introduction

The 43rd Annual CALTCM meeting entitled Quality Through Best Practices is focused on an interdisciplinary approach to address common conditions seen in long-term care. From utilizing a QAPI approach to developing best practices, to interactive analysis of case-based examples, participants will review the latest in evidence-based care of frail, older adults.

The 43rd Annual Meeting features three half-day sessions:

- **Friday Afternoon:** "Management of Diabetes, Metabolic Syndrome and Obesity"
- **Saturday Morning:** "Managing Pain and Depression"
- **Saturday Afternoon:** "Just Culture and Patient Safety"

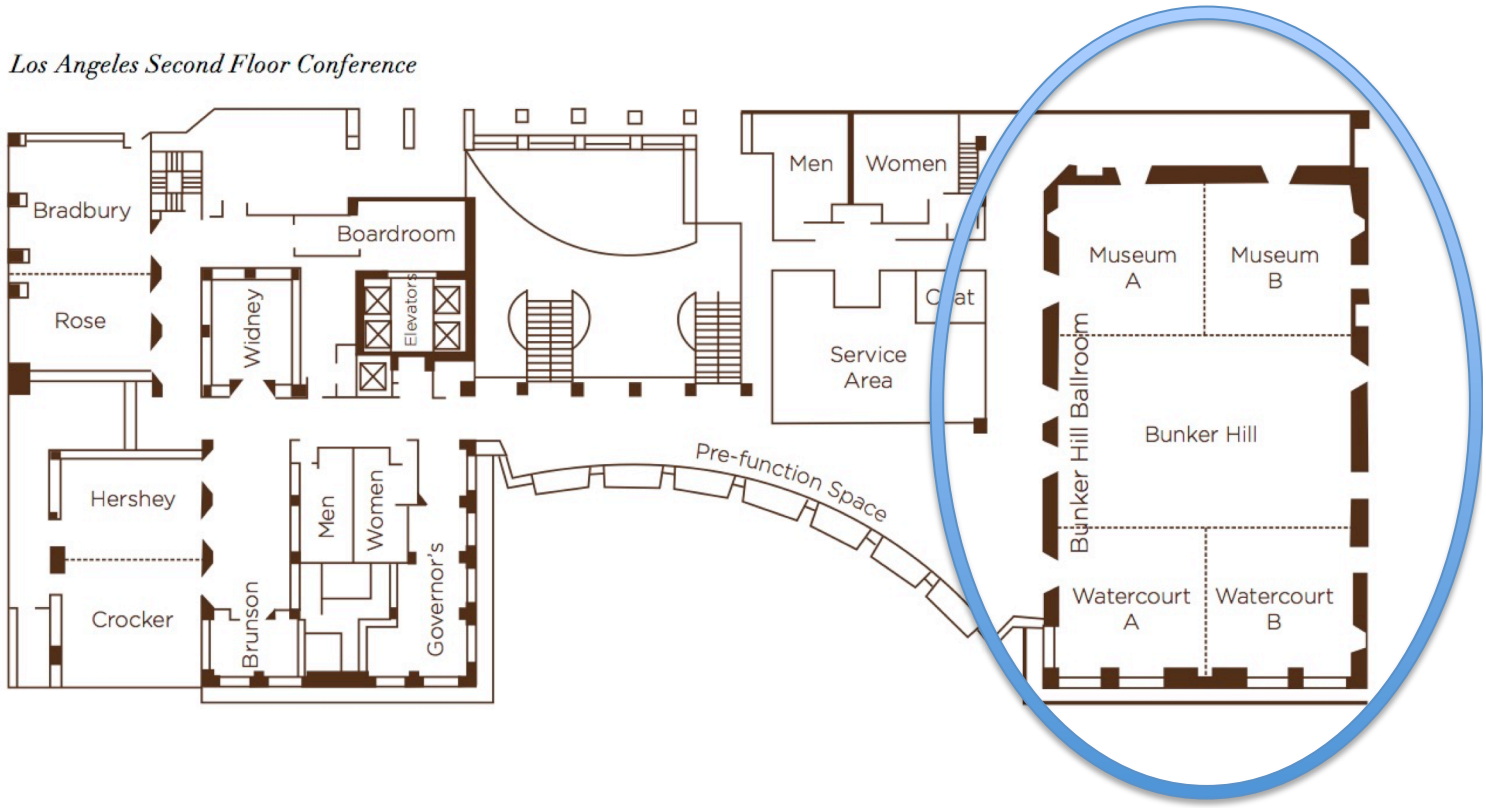
Learning Objectives

By participation in the annual meeting, participants will have the ability to:

1. Examine common conditions occurring in long-term care residents from an interdisciplinary perspective;
2. Describe common nutrition-related issues in long-term care residents;
3. Evaluate the risks and benefits of anticoagulation in the long-term care setting;
4. Identify fall risk in nursing home residents from a person-centered perspective;
5. Explain the latest changes in the *Nursing Home Rules of Participation*.

Meeting Information

The General Session of the Annual Meeting will be held on the second floor of the Omni Los Angeles Hotel at California Plaza, in the Bunker Hill/Museum Ballroom. Lunch and Dinner events will be held in Watercourt.



Continuing Education Information

Participants are required to sign in at the registration desk. The post event evaluations will be emailed to all participants. An evaluation MUST be completed to receive credit. The deadline for Continuing Education requests is June 1, 2017. If you prefer a hardcopy of the evaluation and credit request, please visit the registration desk to request a copy.

Product Theaters & Exhibits

Please take every opportunity to visit each product theater and exhibitor. Their contributions and participation at our annual meeting is essential to our growth and sustainability. Be sure to pick up your Participant Passport at registration, drop off your completed Passport at the registration desk in order to be eligible for the raffle, deadline is 3pm on Saturday.

CALTCM Annual Meeting Accreditation Statement

Continuing Medical Education (CME)
California Association of Long Term Care Medicine is accredited by the Institute for Medical Quality/California Medical Association (IMQ/CMA) to provide continuing medical education for physicians.

California Association of Long Term Care Medicine designates this Live activity for a maximum of **12.5 *AMA PRA Category 1 Credit(s)™.*** Physicians should claim only the credit commensurate with the extent of their participation in the activity. This credit may also be applied to the CMA Certification in Continuing Medical Education.

This course complies with Assembly Bill 1195 Continuing Education: Cultural and Linguistic Competency.

American Board of Post-Acute and Long-Term Care Medicine (ABPLM)*(formerly AMDA)*
This live activity has been pre-approved by the American Board of Post-Acute and Long-Term Care Medicine (ABPLM) for a total of **12 hours toward certification or recertification as a Certified Medical Director (CMD)** in post-acute and long-term care medicine. The CMD program is administered by the ABPLM. Each physician should claim only those hours of credit actually spent on the activity.

Board of Registered Nursing (BRN)
The California Association of Long Term Care Medicine (CALTCM) is a provider approved by the California Board of Registered Nursing (Provider #CEP-16690). This activity has been **approved for up to 12.5 contact hours**.

Nursing Home Administrators Program (NHAP)
This activity has been approved by the Nursing Home Administrator Program for up to **12.0 hours of NHAP credit**. Course approval number: 1797012-6001/P.

This course meets multiple requirements of the California Business and professions Codes 2190–2196.5 for physician CME, including cultural competency and geriatric credits.

Education Committee Chair

Michael Wasserman, MD, CMD

Education Committee

Debra Bakerjian, PhD, RN, FNP

Diane Chau, MD

Heather D'Adamo, MD

Mary Ellen Dellefield, PhD

Rebecca Ferrini, MD, MPH, CMD

Timothy Gieseke, MD, CMD

Janice Hoffman, Pharm.D, CGP, FASCP

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Jim Jensen, MHA, MA

Albert Lam, MD

Vanessa Mandal, MD

Dan Osterweil, MD, FACP

KJ Page, RN-BC, LNHA

Rachel Price, MSG

Denise Rettenmaier, DO

Rajneet Sekhon, MD

Karl Steinberg, MD, CMD, HMDC

Program Faculty Biographies

Debra Bakerjian PhD, APRN, FAAN, FAANP

Debra Bakerjian is Senior Director for Nurse Practitioner and Physician Assistant Clinical Education and Practice, as well as an associate adjunct professor, at the Betty Irene Moore School of Nursing at UC Davis. Bakerjian's research aims to maximize the role of advanced practice nursing within the interprofessional team and to improve the quality of care for aging populations. Her research focuses on the role of nurse practitioners; patient safety and quality improvement practices in long-term-care; comprehensive pain management in frail older adults; and in interprofessional education and practice.

Dr. Bakerjian and Co-PI Elena Siegel were recently awarded a $1.2 million CMS Civil Money Penalty grant to study the implementation of the MUSIC and MEMORY^{SM} program within a QAPI framework. This grant complements their study with collaborator California Association of Healthcare Facilities – this study will occur in almost 450 nursing homes in California.

Bakerjian earned a Doctor of Philosophy in Health Policy and Gerontology in 2006 and a Master in Science of Nursing in 1992, both from UC San Francisco School of Nursing. Her doctoral study, "Utilization of Nurse Practitioners in Nursing Homes: A Comparison with Physicians," received the 2006 Dissertation of the Year Award at UC San Francisco. Bakerjian earned a Family Nurse Practitioner and Physician Assistant certificate from the UC Davis School of Medicine in 1991.

Bakerjian is active in both state and national organizations associated with the care of older adults. She is the president of the California Association of Long Term Care Medicine and has been a member of CALTCM and AMDA since 2001. She has also served on the advisory committee for AMDA's Clinical Practice Guidelines. She was one of first nurses to serve on the steering committee for Advancing Excellence in American Nursing Homes' and is currently on the National Quality Forum's Common Formats standing committee. She has been on the Health Sciences Executive Committee of the Gerontological Society of America and served on the Quality Measures Committee for the American Geriatrics Society in the past. She is a past president of the Gerontological Advanced Practice Nurses Association and recently retired as chair of the GAPNA Foundation. Dr. Bakerjian is a Fellow of both the American Association of Nurse Practitioners and the American Academy in Nursing.

Alex Bardakh, MPP

Alex Bardakh, MPP, PLC, is the Director of Public Policy & Advocacy for AMDA – The Society for Post-Acute and Long-Term Care Medicine. Alex is a tireless worker for the Society's extensive Public Policy agenda through Advocacy in Congress and numerous Federal Agencies. A graduate from the University of Maryland in Political Science/Psychology and Public and Legal Policy, Alex has extensive experience in health policy with a specific focus on areas such as payment models and quality of care initiatives. He has had great success with assembling workgroups that have developed numerous white papers on care transitions and other related issues.

Program Faculty Biographies

Traci Clark, RN

Traci is a third-generation nurse who is very passionate about her profession. She has served in various settings to include acute care, transitional, and long-term care. Traci, an advocate of the culture-change movement in nursing facilities, is often sighted with her companions Buddy, a chocolate Lab, and Callie, a German Pointer. A proud mother of three active daughters, she has been instrumental in integrating youth into various programs at Creekside.

David Farrell, MSW, LNHA

David Farrell, M.S.W., L.N.H.A., is a licensed nursing home administrator who has spent over 30 years in the health care profession. He started as a certified nursing assistant in order to earn extra money while attending college. That experience inspired him to pursue a Master's degree in Social Work with a concentration in gerontology and administration from Boston College. Throughout his career in various leadership positions, David has advocated for patient-centered care using quality improvement practices. A published author and nationally recognized leader in the post-acute care field, his award-winning book, "Meeting the Leadership Challenge in LTC: What You Do Matters!" co-authored with Barbara Frank and Cathie Brady, has received widespread acclaim. David is the Vice President of Subacute Services at Telecare Corporation.

Timothy Gieseke, MD, CMD

Dr. Gieseke graduated AOA from UCI in 1976 and then completed a straight Internal Medicine at UCD, Sacramento Medical Center. Since 1979, he has practiced internal medicine in Santa Rosa with an emphasis Post-Acute and Long Term Care Medicine as well as geriatrics and palliative care. He left his office practice in 2005 to focus full time on care of the frail elderly predominantly in the nursing home setting. He teaches geriatrics and palliative care at the Sonoma County UCSF affiliated Family Medicine Residency where he is an Associate Clinical Professor.
He was President of CALTCM (California Association of Long Term Care Medicine) July 2005-2007, and is the Chair of the Education committee again from May 2013 through April 2015. He was a member of AMDA Public Policy committee for 6 years ending in 2014. He is member of the Sonoma Co POLST Coalition and a member of the POLST Physician Leadership Council. He has presented at CALTCM and AMDA meetings and has been faculty for the INTERACT workshops. He is on the editorial board of the CALTCM WAVE and is a frequent contributor.
He is interested in International Medicine and has participated in medical projects in Ecuador (1990), Albania, and Kosovo.

Maria Guzman, RN

Maria Guzman, RN is a highly-respected charge nurse who has specialized in Dementia Care at the Veterans' Home especially in the area of Long Term care. Within that area of expertise, she has become a core figure helping to resolve patient and family conflicts. She also works with Nursing Education and teaches Dementia Care to other Veterans' Home staff. She is a devoted wife and mother, whose daughter will soon be college bound to pursue a career in Mental Health.

Program Faculty Biographies

Terry Hill, MD, FACP

Terry E Hill is Vice President for Performance Strategy at Hill Physicians Medical Group, where he leads accountable care initiatives. Formerly in private practice geriatrics, his career has included executive positions at Laguna Honda Hospital and California's Medicare quality improvement organization. Dr. Hill also served as CEO for Medical Services at the California Prison Receivership. His experience in palliative care includes serving on the National Quality Forum's Palliative and Hospice Care Review Committee and serving as co-chair of the Coalition for Compassionate Care of California. His writing has addressed multiple topics in geriatrics and palliative care, quality measurement, and the dynamics of moral judgment in clinical practice. He is board chair of *Health**Impact*** (formerly the California Institute for Nursing and Health Care) and former president of the California Association of Long Term Care Medicine. He received his MD from the University of California, San Francisco, and his fellowship training at Stanford.

Elizabeth Landsverk, MD

Elizabeth Landsverk, MD, is a Geriatrician providing house calls for complicated patients in the San Francisco Bay area. Dr. Landsverk is an Adjunct Professor of Medicine at Stanford University. She is triple board certified in Geriatrics, Internal and Palliative Medicines. Dr. Landsverk has been a Hospice Medical Director and consulted for the San Francisco Elder Abuse Forensics Center. She is also the medical director for two dementia communities in the Bay Area. Dr. Landsverk founded ElderConsult Geriatric Medicine, a house calls practice, ten years ago to address the challenging medical and behavioral issues facing older patients and their families, particularly those with dementia. She has expanded to add an online community on her website to address questions regarding the challenging care issues with elders.

Jay Luxenberg, MD

I am an internist and geriatrician who has practiced in San Francisco since completing my training in 1987. I have served as Chief Medical Officer at On Lok since 2011. On Lok is the original PACE program – Program for All-Inclusive Care for the Elderly. It offers comprehensive health care for more than 1450 frail elderly persons in San Francisco, Fremont and San Jose, California, all of whom are eligible to live in a nursing home. Until June 2011 I served as Chief Medical Officer at the Jewish Home, San Francisco, a 430-bed skilled nursing facility with an acute geropsychiatric hospital unit. My academic rank is Clinical Professor, School of Medicine, University of California, San Francisco. I teach at U.C.S.F., U.C. Berkeley and Stanford. I had a private practice of geriatric medicine from 1987-1996. After completing a fellowship in geriatric medicine, I spent 1984-87 as a Medical Staff Fellow in the Section on Brain Aging and Dementia, Laboratory of Neurosciences, at the National Institute on Aging, National Institutes of Health in Bethesda, MD. I served on the Board of Directors, including a term as Treasurer, of the International Psychogeriatrics Association. I served on the Board of Directors of On Lok prior to my employment there. I've published many research papers, reviews, and book chapters. My most recent book is "Residential Care - Your Role in the Health Care Team". I have published four Cochrane Database Systemic Reviews related to geropsychiatry (Haloperidol for agitation in dementia, Valproate preparations for agitation in dementia, Antipsychotics for delirium, and Benzodiazepines for delirium). I am editor of the California Association of Long Term Care Medicine newsletter "The Wave". I serve on the Editorial Board of the Journal of the American Medical Directors Association (JAMDA). I am a Fellow of the American Geriatrics Society and the American College of Physicians.

Program Faculty Biographies

KJ Page, RN-BC, LNHA

KJ Page is a licensed nursing home administrator and a registered nurse board certified in gerontology. She meddles everywhere at Chaparral House where she has been excited to serve as Administrator since December 2002. KJ has mad regulatory compliance skills which has led to Chaparral House becoming one of the few Skilled Nursing Facilities to be Joint Commission Accredited, Post-acute and Memory care certified, as well as star gazing with CMS through their 5 star rating system. Not known for easily accepting NO as an answer, Chaparral House focuses on innovative person centered solutions to complex problems and communication concerns along the long-term health care spectrum.

Denise Rettenmaier, DO

Dr. Denise Rettenmaier is a UCSF trained internist, a Stanford fellowship trained geriatrician and a board-certified hospice and palliative care physician at the Veterans Hone of California at Yountville in the Napa Valley. She has been involved in dementia care and long term care for almost twenty years, including seven years as the medical director of Memory Care Center. She remains passionate about the elderly, long term care, and dementia.

Martha Stassinos, PharmD

Martha Stassinos is a clinical pharmacist specialist with the Veterans Administration for the last 15 years. Her position is a combination of mid-level practitioner and medication specialist. Her scope of practice and experience include management of most chronic diseases seen in veterans, anticoagulation management, health enhancement, risk mitigation, geriatrics and her passion, women's health. She provides anticoagulation consult and management services at the Oakland VA Outpatient Clinic.

She is adjunct professor for University of the Pacific, Touro University, and California North state colleges of pharmacy. She received her doctorate in pharmacy from UCSF in 1979 returning to UCSF in 1999 to complete the first clinical pharmacist women's health specialty residency in the United States. She has worked with all age groups, across many cultural domains including several years in Indian Health Service throughout the southwest. She has authored, co-authored and edited publications in books and professional journals about clinical pharmacy topics in general and women's health specifically and at one time authored a column on health for Women in Aviation International.

She is a consultant in women's and transgender medication therapy for VA Northern California, created one of the few pharmacist residency training rotations in women's health in the nation. She conducts the national e-mail list of VA Women's Health Clinical Pharmacists. She is available part time for consultations. She adjudicates non-formulary drug requests for medications for womens and transgender health, anticoagulation and dyslipidemias. Her approach is collaborative and problem-solving.

She is a member of the North American Menopause Society and the International Menopause Society (international medical organizations) and the American College of Clinical Pharmacists and is a member of the ACCP ambulatory care and women's health specialty groups.

Program Faculty Biographies

Karl Steinberg, MD, CMD, HMDC

Dr. Karl Steinberg has been a hospice and nursing home medical director in the San Diego area since 1995 and is currently medical director at Village Square, Life Care Center of Vista, Carlsbad by the Sea, and Hospice by the Sea. He got a bachelor's in biochemistry from Harvard and studied medicine at The Ohio State University College of Medicine, then did his family medicine residency at UCSD. Dr. Steinberg is on AMDA's Board of Directors and chairs their Public Policy Committee in addition to serving as editor-in-chief of their monthly periodical, Caring for the Ages. He also chairs the Coalition for Compassionate Care of California and is active in advance care planning and palliative care initiatives, including education and public policy on a statewide and national level. However, Dr. Steinberg is probably best known for taking his dogs on patient care rounds with him on most days.

Karen Wall, EdD, RN-BC, LMFT

Karen Wall has a Doctor of Education (EdD) degree from Argosy University in Counseling Psychology, her dissertation being about religion and spirituality in counseling. She has a MA degree in Counseling Psychology/Marriage and Family Therapy, and has a private practice with her intern supervisor. Karen specializes in military/veterans' mental health, geriatric mental health and dementia care, PTSD, humor in mental health, music and memory, and animal assisted therapy/service dogs. She has a BS in Nursing from York College of PA, and a BS in Biology from Texas Tech University; a PD(MA) in Secondary Education from University of Hawaii, and an AA in Pre-Med from New Mexico Military Institute.

Karen now works with the VA as a mental health nurse and currently works as the Geriatric & Dementia Care Coordinator for the Community Living Centers in Palo Alto VA. She provides support, training, consultation, and coaching for the staff working with veterans who live in the CLC and who live with dementia, mental illness, and traumatic brain injuries. Karen has been with the VA since 2006, working with inpatient and outpatient mental health, and nursing education. As a veteran, she enjoys being at the VA where she can still be close to the military and relate to the patients.

Kerry Weiner, MD, MPH

Kerry has over 20 years' experience as a physician leader and executive at the national level specializing in developing and managing physician multispecialty medical groups. He has particular expertise in care redesign to meet value-based reimbursement strategies. Kerry recently served as CMO of IPC Healthcare from 2011, where he led the clinical functions of a national medical group with over 1300 acute hospitalists, 800 post- acute and 200 behavior health providers. He was a leading advocate for participation in the CMS BPCI pilot, an APM based on episodic payments. (IPC was acquired by TEAMhealth in 2015). Previously, Dr. Weiner served as CMO and Sr. VP of Lakeside Community Health Care for 26 years where he was also cofounder. He grew the organization to a 140-provider medical group with PCP, hospitalists and 14 sub-specialties. The group cared for FFS patients and managed care patients. In addition, Dr. Weiner was responsible for the care in Lakeside IPA with 2200 providers. The combined company managed risk contracts for 250,000 patients.

Dr. Weiner received his medical degree, master's in public health and bachelor's degree from the University of California, Los Angeles. Dr. Weiner is an active member of the SHM (Society for Hospitalist Medicine) Public Policy Committee and the AMDA Post-Acute and Long Term Care Society Public Policy Committee.

Program Faculty Biographies

Jane Weinreb, MD

Chief, Division of Endocrinology, Diabetes and Metabolism, VA Greater Los Angeles Healthcare System and Clinical Professor of Medicine, David Geffen School of Medicine at UCLA. Diabetes in the elderly, ketosis prone type 2 diabetes, and impact of Hepatitis C treatment on diabetic control.

Glen Xiong, MD

Dr. Xiong earned his medical degree from UC Davis and completed his post-graduate residency training in psychiatry and internal medicine at Duke University Medical Center. Dr. Xiong is an Associate Clinical Profession at the University of California at Davis. He switched to part-time status at UC Davis in January 2017, when he joined Doctor on Demand as Medical Director of Mental Health. Dr. Xiong is a Certified Medical Director (recertified in 2016) and is a faculty member of the AMDA Core Curriculum. Dr. Xiong provides consultation to assisted living and skilled nursing facilities in the Greater Sacramento Region, especially in the area of accurate diagnosis, appropriate psychiatric medication usage and gradual dose reduction, conservatorship evaluations, and interdisciplinary team management of complex behavioral issues. He is a member of the American Psychiatric Association, Association of Medicine and Psychiatry, and American Medical Director's Association.

Gwen Yeo, PhD, AGSF

Gwen Yeo was the founding Director of the Stanford Geriatric Education Center in Stanford University School of Medicine, which was funded by the Bureau of Health Professions for 28 years. After teaching sociology and gerontology at Texas Tech University and Chabot College, she joined Stanford University School of Medicine where she directed several geriatric education and research programs. Under her leadership, the multidisciplinary, multiethnic Stanford GEC helped develop the field of ethnogeriatrics. Her work has focused on the development of resources and curricula for ethnogeriatric education. She has published widely in the field of ethnogeriatrics, is senior editor of two editions of the book, Ethnicity and the Dementias and Section Editor for Ethnogeriatrics and Special Populations of the Journal of American Geriatrics Society. She is caregiver for her husband who has dementia.

CALTCM Faculty and Planner Disclosures

It is the policy of California Association of Long Term Care Medicine (CALTCM) to ensure balance, independence, objectivity, and scientific rigor in all of its sponsored educational programs. All faculty participating in any activities which are designated for *AMA PRA Category 1 Credit(s)* ™ are expected to disclose to the audience any real or apparent conflict(s) of interest that may have a direct bearing on the subject matter of the CME activity. This pertains to relationships with pharmaceutical companies, biomedical device manufacturers, or other corporations whose products or services are related to the subject matter of the presentation topic. The intent of this policy is not to prevent a speaker with a potential conflict of interest from making a presentation. It is merely intended that any potential conflict should be identified openly so that the listeners may form their own judgments about the presentation with the full disclosure of the facts. It remains for the audience to determine whether the speakers' outside interests may reflect a possible bias in either the exposition or the conclusions presented.

The following faculty and planners have indicated any affiliation with organizations which have interests related to the content of this conference. This is pointed out to you so that you may form your own judgments about the presentations with full disclosure of the facts. All conflicts of interest have been resolved in accordance with the ACCME's Standards for Commercial Support.

Faculty and Planners	Role	Affiliation / Financial Interest	Name of Organization
Alex Bardakh, MPP	Faculty	None	
Deb Bakerjian, PhD, APRN, FAAN, FAANP	Faculty / Planner	Clinical Consultant, Consulting Fee Researcher, Grant Recipient Researcher, Grant Recipient	Wolters-Kluwer HRSA CDPH-CAHF
Diane Chau, MD	Planner	None	
Traci Clark, RN	Faculty	None	
Heather D'Adamo, MD	Planner	None	
Mary Ellen Dellefield, PhD, RN	Planner	None	
Karen Dorris	Staff	None	
David Farrell, MSW, LNHA	Faculty	None	
Rebecca Ferrini, MD, MPH, CMD	Planner	None	
Tim Gieseke, MD, CMD	Faculty / Planner	None	
Maria Guzman, RN	Faculty	None	
Terry Hill, MD, FACP	Faculty	None	

CALTCM Faculty and Planner Disclosures (cont.)

Faculty and Planners	Role	Affiliation / Financial Interest	Name of Organization
Janice Hoffman, PharmD	Planner	Researcher, Grant Recipient	Novartis
Barbara Hulz	Planner	None	
Ashkan Javaheri, MD, CMD	Planner	None	
Jim Jensen, MPH, MA	Planner	None	
Albert Lam, MD	Planner	None	
Elizabeth Landsverk, MD	Faculty	None	
Jay Luxenberg, MD	Faculty	None	
Vanessa Mandal, MD	Planner	None	
Yamaira Moreno	Staff	None	
Dan Osterweil, MD, FACP	Planner	Principal Investigator/ Researcher	Novartis
KJ Page, RN-BC, LNHA	Faculty/ Planner	None	
Rachel Price	Planner	None	
Denise Rettenmaier, DO	Faculty / Planner	None	
Rajneet Sekhon, MD	Planner	None	
Martha Stassinos, PharmD	Faculty	Minor Stockholder, Dividends	Various Pharma Companies
Karl Steinberg, MD, CMD, HMDC	Faculty/ Planner	Ad Board, Panel, Honoraria Non-branded Speakers Bureau, Honoraria	Sunovian Boehringer Ingelheim
Karen Wall, EdD, RN-BC, LMFT	Faculty	None	
Mike Wasserman, MD, CMD	Planner	Editorial Board, Honoraria	Merck Manual
Kerry Weiner, MD	Faculty	None	
Jane Weinreb, MD	Faculty	None	
Glen Xiong, MD	Faculty	Book Co-Editor, Honorarium Book Co-Editor, Honorarium Pharmacy & Medical Policy Committee Member, Stipend	Lippincott Williams Wilkins American Psychiatric Publishing Blue Cross Blue Shield Federal Employee Program
Gwen Yeo, PhD, AGSF	Faculty	None	

2017 CALTCM Leadership Award

The CALTCM Leadership Award recognizes individuals who have demonstrated exceptional leadership and made outstanding contributions in the areas of education, practice, administration or policy in long term care. This leadership is characterized by results of increased visibility of critical issues, creation of solutions to significant problems, and positive impacts on the overall quality of care in long term care.

CALTCM is proud to present the 2017 CALTCM Leadership Award to:

KJ Page, RN-BC, LNHA

KJ Page is a licensed nursing home administrator and a registered nurse board certified in gerontology. She has served as an Administrator since December 2002. KJ has led Chaparral House to become one of the few Skilled Nursing Facilities to be Joint Commission Accredited, Post-Acute and Memory care certified. Chaparral House focuses on innovative person-centered solutions to complex problems and communication concerns along the long-term health care spectrum.

Special Acknowledgements

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Program Agenda

Friday, April 28, 2017

11:00 A.M.	**Registration/Exhibits Open**
11:45 A.M.	**CALTCM Poster Session Viewing I** *(CME Offered)*
11:45 A.M.	**Lunch Product Theater** *(No CME)*
1:00 P.M.	**Welcome & Introductions**
1:10 P.M.	**Opening Comments**
1:15 P.M.	**Challenges in Diabetes Management**
2:00 P.M.	**Managing Metabolic Syndrome and Obesity**
2:20 P.M.	**Best Practices in Facility Bariatric Care**
3:00 P.M.	**Break/Exhibits/Networking**
3:30 P.M.	**Case Studies: Best Practices in Bariatric Care** *Interactive Roundtable Session*
4:15 P.M.	**Creating a Patient Safety Chain**
4:45 P.M.	**PA/LTC Update #1: MACRA/FINANCING**
5:30 P.M.	**CALTCM Update: Today and Tomorrow**
6:00 P.M.	**Exhibits Close**
6:00 P.M.	**CALTCM Poster Session Viewing II** *(CME Opportunity)*
6:00 P.M.	**CALTCM Reception**
7:00 P.M.	**Dinner Product Theater** *(No CME)*

Program Agenda
Saturday, April 29, 2017

6:45 A.M.	**Exhibits Open & Breakfast Product Theater** *(No CME)*
8:00 A.M.	**Welcome**
8:05 A.M.	**Presentation of 2017 CALTCM Leadership Award**
8:15 A.M.	**Pain and Depression in the Nursing Home: Non-Medical Interventions**
8:45 A.M.	**Medication Strategies in Management of Pain in the PA/LTC Continuum**
9:15 A.M.	**Diagnosis of Depression in Geriatrics and PA/LTC**
9:45 A.M.	**Treatment Strategies for Depression in the PA/LTC Continuum**
10:15 A.M.	**Break/Exhibits**
10:45 A.M.	**Challenging Cases in Pain and Depression** *Interactive Panel Discussion*
11:30 A.M.	**PA/LTC Update #2: How to Survive in Post-Acute Care**
12:05 P.M.	**Readmission Roundtables:** *Working Lunch (CME Event)*
1:15 P.M.	**CALTCM Awards**
1:30 P.M.	**Cultural Conflicts and Keeping Patients Safe**
1:50 P.M.	**Anticoagulation Use from a Patient Safety Perspective**
2:10 P.M.	**Fall Reduction: Balancing Reality**
2:30 P.M.	**Let's Go!: Team Management of Constipation, Diarrhea and Patient-Centered Nutrition**
3:00 P.M.	**Break/Exhibits**
3:30 P.M.	**Safety and Dementia Care**
3:50 P.M.	**Patient Safety Case Studies**
4:25 P.M.	**PA/LTC Update #3: Spring 2017 Policy & Regulatory Summary**
4:55 P.M.	**Closing Comments/Evaluations**
5:00 P.M.	**Adjourn**


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Quality Through Best Practices


CALTCM
California Association of Long Term Care Medicine
43rd Annual Meeting
Quality Through Best Practices
California Association of Long Term Care Medicine
Promoting quality patient care through medical leadership and education
Challenges in Diabetes Management
Jane Weinreb, MD
Chief, Division of Endocrinology
VA Greater Los Angeles Healthcare System
Clinical Professor of Medicine
David Geffen School of Medicine at UCLA
CALTCM 2017

Speaker Disclosure Statement

Dr. Jane Weinreb has no relevant financial relationships with commercial interests to disclose.

Goals of Lecture

- Background
- Glycemic goals in older patients
  - How to individualize
  - Tips for how these can safely be achieved
- Define ways to minimize risk of hypoglycemia
  - Basic tenets to prevention, including reduction in use of sliding scale
  - Optimal management when hypoglycemia occurs
  - Drug regimens that reduce hypoglycemia risk
  - Use of newer technology and preparation for co-managing patients with insulin pumps.
- Glycemic management of obese patients with high insulin resistance

Classification of Diabetes

- **Type 1 DM**: due to autoimmune beta cell destruction, leading to absolute insulin deficiency. These patients need insulin for life.
- **Type 2 DM**: results from a progressive secretory defect on the background of insulin resistance. These patients often retain the ability to make insulin for many years.
  - 85-90% of diabetic adults.
  - Tend to be obese and may have other features of metabolic syndrome.
  - May need insulin (*can check a C-peptide to see if they make their own*)
- **Gestational DM**: diagnosed during the second or third trimester of pregnancy that is not clinically overt
- **Other specific types of DM**: due to other causes, including genetic defects in beta cell function or insulin action, diseases of the exocrine pancreas, drug or chemical induced.

Standards of Medical Care in Diabetes- 2017. American Diabetes Association. Diabetes Care 40(S1): S11-24, 2017.

Diabetes is Common in the LTC Setting

- Diabetes is an independent predictor of elderly placement in a LTC facility
- 26.8-34% prevalence in NH patients[1]
- Cost of caring for diabetics in LTC facilities was $19.6 billion in 2012[2]
- Important to review record for evidence of diabetes
  - On diabetes medication
  - Labs with hyperglycemia
  - Diabetes complications without prior diagnosis.

[1]MN Munshi et al. Diabetes Care. 39:308-18, 2016.
[2]American Diabetes Association. Diabetes Care. 2013; 36:1033-46.

Presentation of Diabetes in Older Patients

Metabolic Abnormality	Younger Patients	Older Patients
Increased Osmolality	Polydipsia	Dehydration, Confusion, Delirium
Glycosuria	Polyuria	Incontinence
Insulin Deficiency	Polyphagia, Weight Loss	Anorexia, Weight Loss
Hypoglycemia	Sweating, palpitations	Headache, falls, MI, confusion, sleepy, slurred speech, bizarre behavior, seizures, coma

Glycemic Goals for Therapy

- The DCCT, VA Cooperative Study, and UKPDS provide convincing evidence that tight glycemic control results in delayed onset and slowed progression of microvascular complications.
- With each degree of improvement, there appears to be some benefit derived.
- The EDIC study reveals a ↓ in macrovasc events in type 1 diabetics with prior tight control. Similar confirmed in type 2 diabetics in the UKPDS follow up study.
- These studies include few patients >65 yrs of age.
- Takes several years to derive benefit.

DCCT, New Engl J Med, 329:977, 1993 VA Cooperative Study, Diabetes Care, 18:1113, 1995
UKPDS, The Lancet, 352:837, 1998 Abraira et al. Diabetes Care. 21:574-9, 1998
EDIC Study. N Engl J Med 2005; 353:2643-2653, 2005. Holman et al. N Engl J Med 359:1577-89, 2008

Tight Glycemic Control May Not ↓ Macrovascular Outcomes in Pts w/ CAD

- 3 trials done to assess CV benefit of tight glycemic control in patients with longstanding diabetes and either known CVD or high risk for such.
  - ACCORD Trial
  - ADVANCE Trial
  - VA Diabetes Trial
- Better microvascular outcomes in the tight control arm in all studies.
- No improved macrovascular outcome in any of the studies.
- Very low event rate in VADT, where all patients had impeccable BP and lipid control
- Increased deaths in the tight control arm of the ACCORD trial.
  - Especially in those with CAD or neuropathy.
  - Difficulty in achieving control.
- Perhaps once CV disease has developed, tight glycemic control may be more dangerous… Need to individual glycemic control

The Accord Study Group. N Engl J Med;358:2545-59, 2008.
The ADVANCE Collaborative Group. N Engl J Med;358:2560-72, 2008.
Duckworth et al. N Engl J Med 360:129, 2009

Glycemic Goals for Older Adults

- Healthy older adults (good cognitive and physical function): appropriate to maintain aggressive goals and intensive therapy to:
  - lessen microvascular and macrovascular complications
  - minimize the effects on geriatric syndromes
  - improve quality and duration of life.
- Need to **individualize** goals based upon[1]:
  - overall health status
  - level of function: aggressive control has not been shown to benefit older adults with low levels of function (3 or more limitations in IADL's or ADL's)[2]
  - personal and family desires.
- Need to take into consideration the time to expected benefit.
  - Life expectancy may be shorter than the time needed to benefit from the intervention
  - Microvascular benefits from tight glycemic control occur in ~few years
  - Benefit from BP and lipid control occurs in ~2-3 years.

[1]Standards of Medical Care in Diabetes- 2017. Older Adults. American Diabetes Association. Diabetes Care 40(1): S99-104, 2017.
[2]Olson and Norris. Geriatrics 59:18-24, 2004
[3]American Geriatric Society Expert Panel on the Care of Older Adults with Diabetes Mellitus. JAGS. 61:2020-26, 2013.

ADA Glycemic Targets for Older Adults

Patient characteristics/ health status	Rationale	Reasonable A1C Goal	Fasting or Preprandial Glucose	Bedtime glucose
Healthy (few coexisting chronic illnesses, intact cognitive and functional status)	Longer remaining life expectancy.	<7.5%	90-130 mg/dl	90-150 mg/dl
Complex/ Intermediate (multiple coexisting illnesses or 2+ instrumental ADL impairments or mild-to-moderate cognitive impairment)	Intermediate remaining life expectancy, high treatment burden, hypoglycemia vulnerability, fall risk .	<8.0%	90-150 mg/dl	100-180 mg/dl
Very complex/ Poor health (LTC or endo-stage chronic illnesses or moderate-to-severe cognitive impairment or 2+ ADL dependencies)	Limited remaining life expectancy makes benefit uncertain. *Avoid hyperglycemia to prevent dehydration, electrolyte abnormalities, urinary incontinence, dizziness, falls, hyperglycemic crisis.	<8.5%	100-180 mg/dl	110-200 mg/dl

Standards of Medical Care in Diabetes- 2017. Older Adults. American Diabetes Association. Diabetes Care 40(S1): S101, 2017.
*Munshi et al, Diabetes Care. 39:308-18, 2016.

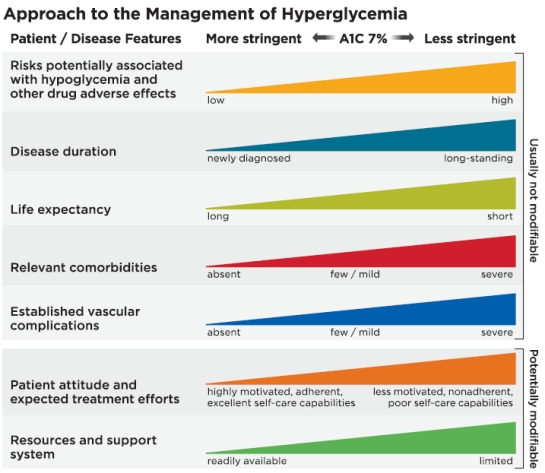
ADA Glycemic Targets for Older Adults

AGS guidelines recommend A1C goal be customized to burden of comorbidity, functional status, and life expectancy.

- Target A1C should generally be 7.5-8%
- May consider A1C of 7-7.5% in healthy older adults with few comorbidities and good functional status.
- May consider A1C of 8-9% for older adults with multiple comorbidities, poor health or limited life expectancy

American Geriatrics Society Expert Panel on the Care of Older Adults with Diabetes Mellitus. JAGS. 61:2020-26, 2013.

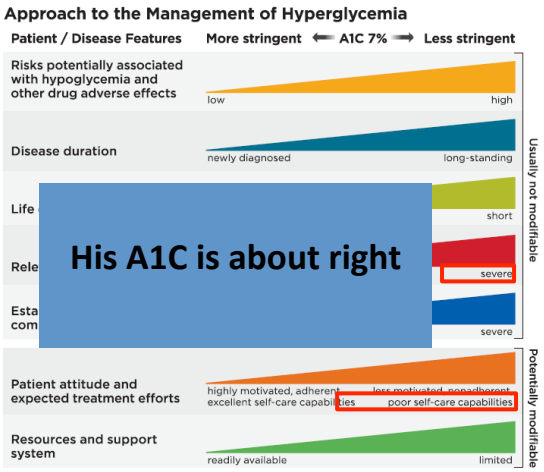
Standards of Medical Care in Diabetes- 2017. Older Adults. American Diabetes Association. Diabetes Care 40(S1): S101, 2017.
*Munshi et al, Diabetes Care. 39:308-18, 2016.



American Diabetes Association. Standards of Medical Care in Diabetes-2017. Glycemic Targets. Diabetes Care. 40(S1):S53, 2017.

Case 1

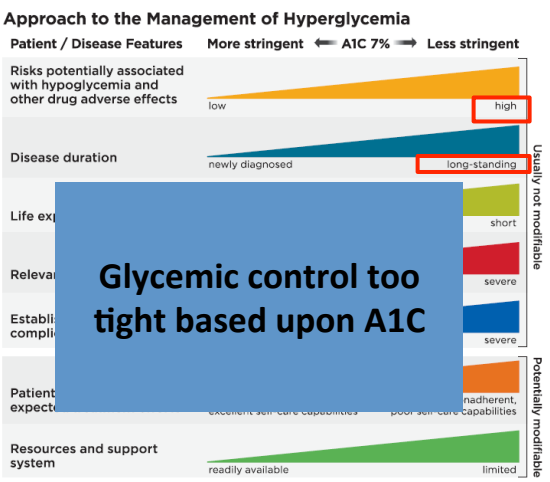
- 85 y.o. man with h/o HTN, longstanding type 2 diabetes and dementia
- Tends to eat whatever he wants, whenever he wants
- On saxagliptin 2.5 mg, pioglitazone 30 mg
- Labs w/ eGFR 32, A1C 7.9%
- What is his A1C goal?
- How can we get there?



American Diabetes Association. Standards of Medical Care in Diabetes-2017. Glycemic Targets. Diabetes Care. 40(1):S53, 2017

Case 2

- 76 year old woman with longstanding Type 2 DM.
  - On metformin 1 gram BID AC, Glipizide 10 mg BID AC, Bedtime NPH insulin 34 units
  - Exam is benign including BMI of 25, weight 64 kg.
- FS BG reveals:
  - FBG's of 140-210 mg/dl
  - Prelunch, predinner, and prebed values of 80-135 mg/dl
- Labs reveal normal electrolytes, LFT's, and A1C 6.8%
- So, what do you think?



American Diabetes Association. Standards of Medical Care in Diabetes-2017. Glycemic Targets. Diabetes Care. 40(1):S53, 2017.

Case (cont'd)

- 3AM rings for help… "doesn't feel well" …
- So, what do you think?
- Nurse got a finger stick BG→BG 36 mg/dl, repeat 41 mg/dl
- Overnight symptoms are classic for hypoglycemia, as documented by her CBG's.

The Limiting Factor: Hypoglycemia

- Percent of patients >65 years old with one or more major hypoglycemic reaction:
  - Insulin 2.8% (up to 5% with NPH)
  - Sulfonylureas 1.2%
  - Metformin 0%
- Percent of patients with any hypoglycemic reaction:
  - Insulin up to 72% with NPH
  - Sulfonylureas 14%
  - Metformin 4%

Hypoglycemia in the Elderly

- Greatest risk for hypoglycemia:
  - Frail Elderly
    - Recent hospitalization within the past 30 days
    - The "oldest of the old"
    - Use of multiple medications
    - Renal and/or hepatic insufficiency
  - Elderly with dementia at higher risk of having a low.
- Counterregulatory responses are impaired in elderly diabetics
  - May have reduced warning symptoms (sweating, palpitations)
  - Dementia is a form of relative hypoglycemic unawareness

K Yaffe et al. Association between hypoglcyemia and Dementia in a Biracial Cohort of Older Adults with Diabetes Mellitus. JAMA Intern Med. 2013: 173:1300-06.
ADA. Standards of Diabetes Care 2017: Glycemic Targets. Diabetes Care. 40(S1): S48-56, 2017.

Treatment of Hypoglycemia- Rule of 15

- When FS glucose is <70 mg/dl, give 15 grams carbohydrate
- Carbohydrate Sources (15-20 g) for Treating Hypoglycemia
  - ½ cup Fruit Juice
  - 1 cup Milk (no fat or low fat)
  - If unable to take p.o.'s, give glucose gel or glucagon and call MD
- Wait 15 minutes and recheck FS BG
  - If glucose is still <70 mg/dl, repeat 15 grams carb
  - Wait additional 15 minutes and recheck →If still low, repeat treatment and call MD
- Once SMBG returns to normal, the individual should consume a meal or snack to prevent recurrence of hypoglycemia.
- Inform physician of low so that regimen can be assessed and future low can be prevented.

A Core Curric for Diabetes Educators, 3rd Ed, AADE, Chicago, Illinois, 1998
American Diabetes Association. Standards of Medical Care in Diabetes- 2017. Glycemic Targets. Diabetes Care. 40(S1):S53-4, 2017.

Prevention of nocturnal hypoglycemia

- Consider a bedtime snack, with increased carbohydrate and protein content if the BG<120 mg/dl
- Consider switch from:
  - Sulfonylurea to meglitinide (repaglinide, nateglinide) or a DPP-4 inhibitor (sitagliptin, saxagliptin, linagliptin, alogliptin)
  - Premeal regular insulin to a rapid acting analog (aspart, lispro, or glulisine)
- Move evening NPH to bedtime or change to glargine, detemir or degludec, preferably in the morning.
- Consider measurement of 3AM blood glucose once a week.

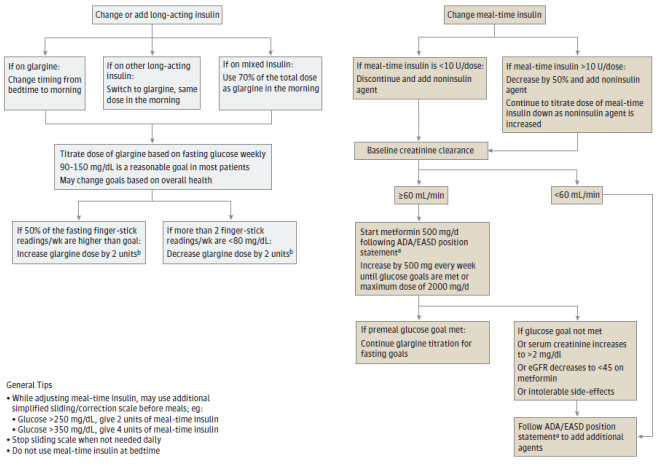
Simplify the regimen to get rid of lows

- Proof of concept study:
  - Single arm study of 65 patients ≥65 years old.
  - Diagnosed with T2DM based upon +C-peptide.
  - All patients were on ≥2 injections of insulin daily and had hypoglycemia.
  - Pts had mean age 76, mean diabetes duration 23 years, mean insulin injections per day 3.7.
- Able to improve A1C by ~0.5% with significant reduction in hypoglycemia.

MN Munshi et al. JAMA Internal Medicine. 176(7):1023-5, 2016

(for type 2's)

Figure. Algorithm for Insulin Regimen Simplification



MN Munshi et al. JAMA Internal Medicine. 176(7):1023-5, 2016

Therapy: Medical Nutrition Therapy

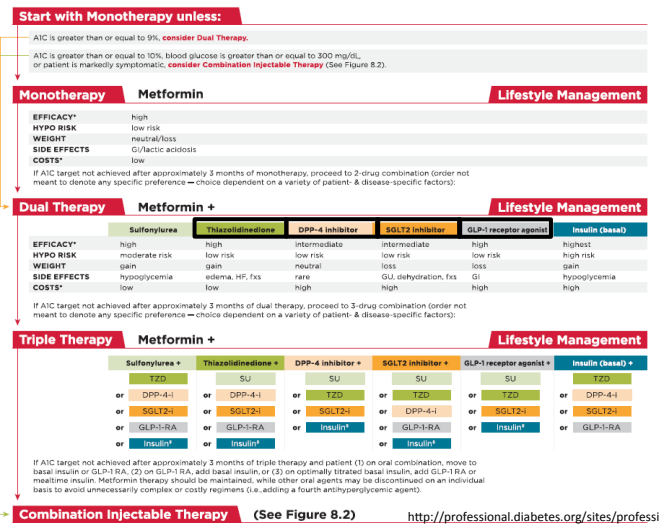
- Diet and exercise remain the cornerstones of treatment, even in older patients
  - May consider weight reduction, if overweight
  - Should exercise including walking 30 mins 5x/wk and light weights
- Older patients with diabetes, especially in long term care facilities, tend to be underweight rather than overweight
  - Given the risk of undernutrition, avoid food restrictions in older individuals living in an institutionalized setting
  - Provide regular menus that are consistent in carbohydrates and served at consistent times.
- Use caution in prescribing caloric supplements, as these can be very high in carbohydrate.

Medical Therapy of Type 2 Diabetes- Aiming for low risk of lows

- First line drug therapy is always metformin as long as renal function is adequate
  - EGFR>60 ml/min can use full dose (1g BID AC)
  - EGFR 30-45 ml/min can use submax dose
  - EGFR <30 ml/min cannot use metformin
- If use long term, there is an increased risk of B12 deficiency, so should check B12 level and supplement as indicated.
- If additional therapy is warranted, choose in patient centered manner

ADA. Standards of Medical Care in Diabetes- 2017. Pharmacologic Approaches. Diabetes Care. 40(1):S64-74, 2017.
Kancherla et al. JAGS. 2017.

Agents with Low Risk of Hypoglycemia



http://professional.diabetes.org/sites/professional.diabetes.org/files/media/dc_40_s1_final.pdf

Med Rx of T2 DM- Other Oral Agents with Low Risk of Hypoglycemia

- DPP-4 inhibitors (Sitagliptin, Saxagliptin, Linagliptin, Alogliptin)
  - Prevents breakdown of intrinsic GLP-1 and GIP (our incretins), thereby increasing insulin secretion and suppressing glucagon secretion in a glucose dependent manner
  - Limited side effect profile, weight neutral
  - Can renally adjust dose, even in renal failure requiring dialysis.
  - Concerns: Increased risk pancreatitis, cost
- SGLT2 inhibitors (Canagliflozin, Dapagliflozin, Empagliflozin)
  - Block sodium glucose cotransporter in the proximal renal tubule, thereby enhancing excretion of glucose and sodium.
  - Must have adequate renal function (eGFR>45 ml/min).
  - Insulin independent means of action.
  - Enhances weight loss, reduces systolic and diastolic blood pressure.
  - Decreased mortality with 3.1 years empagliflozin.
  - Concerns: increased genital mycotic infections, UTI's, euglycemic DKA, cost.

ADA. Standards of Medical Care- 2017. Pharmacologic Approaches. Diabetes Care. 40(1):S64-74, 2017
Inzucchi et al. Diabetes Care. 38:140-149, 2015; Zinman et al. New Engl J Med. 373:2117-28, 2015.
Chon, Oxman, Mullur, Weinreb. Diabetes Medications in CKD. In: Endocrine Disorders in Kidney Disease. C
Rhee and G Brent, Editors, In Press

Med Rx of T2 DM- Other Oral Agents with Low Risk of Hypoglycemia

- Alpha-Glucosidase Inhibitors (Acarbose, Miglitol)
  - Delay carbohydrate absorption via inhibition of intestinal poly and disaccharidases.
  - Decreases post-prandial glucose.
  - Concerns: significant GI side effects, need to take with every carb containing meal
- Thiazolidenediones (Pioglitazone, Rosiglitazone)
  - Move where fat is located, and thereby enhance peripheral insulin sensitivity, especially at muscle and adipose tissue
  - No reliance on renal excretion.
  - Concerns: weight gain, fluid retention with edema, decreased BMD, delayed onset of action.

Yang et al. Lancet Diabetes Endocrinol. 2:46-55, 2014

Med Rx of T2 DM- Other Oral Agents with Higher Risk of Hypoglycemia

- Sulfonylureas (Glipizide, Glyburide, Glimepiride)
  - Bind to specific receptors on the beta cells to promote insulin secretion in a non-glucose dependent manner
  - Inexpensive, but need to monitor BG which increases cost.
  - Concerns: significant hypoglycemia, especially in patients with impaired renal function or who skip meals, weight gain.
  - Avoid glyburide- active hepatic metabolites with increased risk of prolonged lows.
- Meglitinides: (Repaglinide, Nateglinide)
  - Bind to ATP-sensitive potassium channels on beta cells to increase insulin secretion in a non-glucose dependent manner
  - Rapid onset and offset permits better post-prandial control with fewer late lows.
  - Skip dose if skip meal, but need to take with every carb containing meal.
  - Repaglinide is hepatically metabolized- can use with renal insufficiency.
  - Concerns: hypoglycemia, frequent dosing schedule, weight gain, moderate cost.

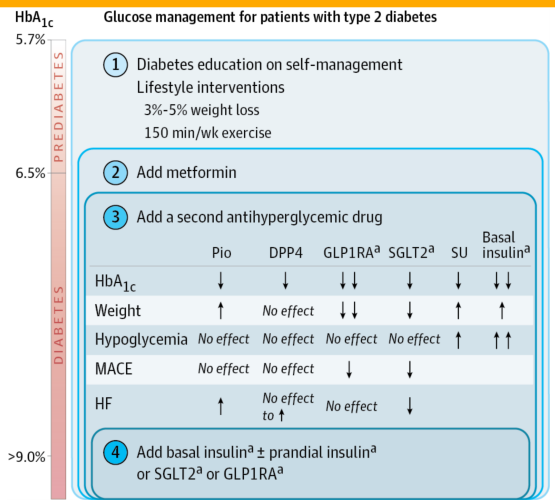
Med Rx of T2DM- Injectable Therapies

- GLP-1 Receptor Agonists (Exenatide, Liraglutide, Dulaglutide, Albiglutide)

  - Act like supraphysiologic levels incretins:
    - Enhance glucose stimulated insulin secretion and glucagon suppression
    - Slow gastric emptying and enhance satiety centrally
  - Low risk of hypoglycemia, weight loss, modest decrease in BP
  - Decreased mortality with 3.8 years lira
  - Concerns: increased risk of pancreatitis, significant GI side effects (nausea, vomiting, diarrhea), C-cell hyperplasia and MTC in rodents, cost.

- Basal insulins: (NPH, Glargine, Detemir, Degludec)
  - Activate insulin receptor to enhance postprandial glucose disposal and suppress hepatic glucose production.
  - Universally effective
  - Concerns: hypoglycemia, weight gain, training requirement, cost.

Marso et al. New Engl J Med. . 375:311-22, 2016



	Pio	DPP4	GLP1RA[a]	SGLT2[a]	SU	Basal insulin[a]
HbA_{1c}	↓	↓	↓↓	↓	↓	↓↓
Weight	↑	*No effect*	↓↓	↓	↑	↑
Hypoglycemia	*No effect*	*No effect*	*No effect*	*No effect*	↑	↑↑
MACE	*No effect*	*No effect*	↓	↓		
HF	↑	*No effect* to ↑	*No effect*	↓		

JEB Reusch and JE Manson. Management of Type 2 Diabetes in 2017: Getting to Goal. JAMA. Published online 3/1/17. doi:10.1001/jame.2017.0241

Why Not Just Use Sliding Scale Insulin?

- Dose is not individualized
- Insulin is reactive, rather than proactive
  - Giving insulin to cover when the BG is already high, rather than preventing the hyperglycemia

- Leads to wide fluctuations in glucose levels
- Does not provide basal insulinization (needed by insulin deficient diabetics) nor consider nutritional coverage

Leahy J. Endocr Pract 12:86-90, 2006
Queale WS et al. Arch Intern Med 157:545-552, 1997
Clement S et al. Diabetes Care 27:553-91, 2004
American Diabetes Association. Diabetes Care 40(1):Supp, 2017

Why Not Just Use Sliding Scale Insulin?

The American Geriatrics Society strongly discourages use of insulin sliding scales in nursing home patients.

Use of sliding scale insulin has been noted to be associated with increased risk of hypoglycemia

Review of literature reveals that if supplemental scale is needed, the target should be no less than 200 mg/dl in order to avoid lows.

Leahy J. Endocr Pract 12:86-90, 2006
Queale WS et al. Arch Intern Med 157:545-552, 1997
Clement S et al. Diabetes Care 27:553-91, 2004
American Diabetes Association. Diabetes Care 40(1):Supp, 2017

Case 3

- 68 y.o. woman with type 1 diabetes since age 18 presents for routine follow up.
- PMH: nonproliferative diabetic retinopathy
- Diabetes medication:
  - Glargine 8 units Q12 hours
  - Aspart 1 unit for every 10 grams carb, one extra unit for every 50 mg/dl over 150 mg/dl.
  - Switched to an insulin pump with aspart 1 year ago.
- Hypoglycemia still occurs ~2-4 times weekly, especially after exercise, but sometimes for no clear reason. Not improved despite higher glycemic targets and switch to pump therapy. Doesn't want to check her finger stick more often (already 4x/day)
- Exam: BMI 24 Appears well, remainder of exam unremarkable save for decreased sensation to monofilament on both feet.
- Labs: creatinine 0.76, eGFR 92 ml/min, A1C 8.2%
- Is there anything new that can help improve her glycemic control without increasing her risk of hypoglycemia?

Background

- Despite advancements in technology and therapeutics, only ~one third of people with type 1 diabetes achieve the level of glycemic control needed to avoid long-term complications.
- Additionally, tight glycemic control as well as insulin deficiency have been linked to an increased risk of hypoglycemia leading to morbidity as well as even mortality
- Finger stick BG monitoring, even when done multiple times each day, provides spotty data for diabetes management.

RW Beck, WV Tamborlane, RM Bergenstal et al. *J Clin Endocrinol Metab* 97:4383-9, 2012
P Choudhary, SA Amiel. *Postgrad Med J* 87:298-306, 2011
ER Seaquist, J Anderson, B Childs et al. *Diabetes Care* 36:1384-95, 2013

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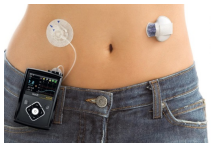
What's new in diabetes technology?

RW Beck, WV Tamborlane, RM Bergenstal et al. *J Clin Endocrinol Metab* 97:4383-9, 2012
P Choudhary, SA Amiel. *Postgrad Med J* 87:298-306, 2011
ER Seaquist, J Anderson, B Childs et al. *Diabetes Care* 36:1384-95, 2013

Insulin Pumps: Terminology



- Basal rate: units of insulin infused per hour
  - Predetermined by physician
  - Can have different basal rates throughout the day
  - Can set a temporary basal rate for exercise
- Bolus dose: amount of insulin infused over a short period
  - Most modern pumps use a bolus calculator based upon planned carbohydrate intake, blood glucose, and "insulin on board"
- Reservoir: amount of insulin each pump can hold
- Infusion Set: tubing and skin insertion site where pump cannula attaches to the body.

Minimed 670G: A hybrid closed-loop insulin delivery system

670G Pump

- FDA has approved a hybrid closed-loop insulin delivery system for use in patients ≥14 years old with type 1 diabetes.
- System uses a "smart algorithm" that "learns an individual's insulin needs" to permit it to automatically adjust basal insulin doses based on readings from a continuous glucose monitor (CGM).
  - Basal insulin is delivered in fully "auto" mode.
  - Mealtime boluses need to be delivered by the patient.
- Also has an automated "suspend before low" feature that alerts the patient and stops insulin delivery for up to 2 hours when the glucose reading approaches a prespecified low level.
- Expect it to be available Spring 2017.

Meter

Sensor

Med Lett Drugs Ther 2016

Safety of a Hybrid Closed-Loop Insulin Delivery System in Patients with Type 1 Diabetes

- 124 type 1 diabetics in a single arm trial.
  - ages 14-75 (mean age 37.8 years)
  - mean duration of disease 21.7 years
  - mean total daily insulin dose 47.5 units
  - On insulin pump therapy for at least 6 months
- After a two week run-in period, patients entered a 3 month at home study period.
- Outcomes were:
  - Percent of glucose values in target range
  - Hypoglycemia, diabetic ketoacidosis, and hyperglycemia (BG>300 mg/dl [16.6 mmol/L])

Safety of a Hybrid Closed-Loop Insulin Delivery System in Patients with Type 1 Diabetes

Table 2. Glucose Control, Insulin Usage, and Weight Among Patients Using Hybrid Closed-Loop Systems

Parameter	Run-in Period	Study Period
Sensor glucose, mean (SD) [median], mg/dL	150.2 (22.7) [150.1]	150.8 (13.7) [149.9]
Percentage of time with glucose level in range, mean (SD); median (IQR)		
Sensor glucose values		
>300 mg/dL	2.3 (3.2); 1.3 (0.2-2.6)	1.7 (1.9); 0.9 (0.5-2.1)
>180 mg/dL	27.4 (13.7); 26.7 (16.0-37.2)	24.5 (9.2); 24.1 (17.3-29.8)
71-180 mg/dL	66.7 (12.2); 67.8 (59.0-75.1)	72.2 (8.8); 73.4 (67.7-78.4)
≤70 mg/dL	5.9 (4.1); 5.3 (3.0-7.6)	3.3 (2.0); 2.9 (1.7-4.3)
≤50 mg/dL	1.0 (1.1); 0.6 (0.2-1.3)	0.6 (0.6); 0.4 (0.2-0.8)
Sensor glucose values at night time only[a]		
>180 mg/dL	26.8 (15.2); 26.4 (15.3-35.8)	21.6 (9.9); 20.8 (13.6-28.5)
71-180 mg/dL	66.8 (14.0); 67.8 (57.6-75.2)	75.3 (9.8); 76.4 (69.0-83.1)
≤70 mg/dL	6.4 (4.3); 5.4 (2.3-8.5)	3.1 (2.2); 2.6 (1.7-4.2)
Within-day SD of glucose, mean (SD); median (IQR), mg/dL[b]	50.1 (9.9); 48.9 (43.7-56.2)	46.7 (7.3); 45.6 (41.7-50.4)
Within-day coefficient of variation of glucose, mean (SD); median (IQR), %[b]	33.5 (4.3); 33.1 (30.3-36.4)	30.8 (3.3); 30.7 (28.2-33.0)
Glycated hemoglobin, mean (SD) [median], %	7.4 (0.9) [7.3]	6.9 (0.6) [6.8]
Total daily dose of insulin, mean (SD) [median], U	47.5 (22.7) [43.9]	50.9 (26.7) [44.1]
Weight, mean (SD) [median], kg	76.9 (17.9) [73.5]	77.6 (16.1) [74.7]

Abbreviations: IQR, interquartile range.

SI conversion factor: To convert glucose to mmol/L, multiply by 0.0555.

[a] Night time was defined as 10:00 PM to 7:00 AM.

[b] Measures of glycemic variability.

- Less time hyper- or hypoglycemic, including overnight
- Improved A1C
- No severe hypoglycemic events or DKA
- Study limitations:
  - No control group
  - Included relatively healthy, well controlled patients
  - Short duration.

RM Bergenstal et al. *JAMA* 2016

How about Continuous Glucose Monitors (CGM)?

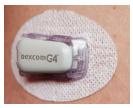
- The Dexcom G5 Mobile Continuous Glucose Monitoring System has received FDA approval as a replacement for traditional fingerstick BG monitoring to determine insulin dosing
  - Composed of a sensor, a transmitter and a receiver or compatible mobile device.
  - Sensor measures interstitial glucose, and transmits glucose data and trend every five minutes.
  - MARD (mean absolute relative difference) in BG now 9%... Very similar to the MARD of glucose meters (5-9%).

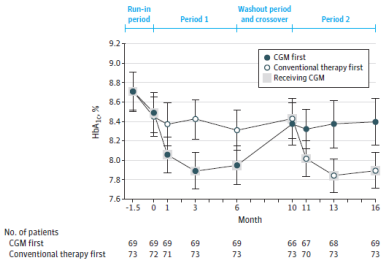
- Still requires calibration with two daily fingersticks (at least Q12hrs)
- Due to its approval as a "therapeutic device", the Centers for Medicare and Medicaid Services (CMS) has announced coverage of the Dexcom G5 mobile.

http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm534056.htm
Diabetes Technol Ther 18:512-16, 2016.

Use of CGM with Multiple Daily Injections (MDI) of Insulin

- Beck et al looked at 158 type 1 diabetics on MDI
  - A1C 7.5-9.9% (mean 8.6%), mean age 48, mean diabetes duration 19 years.
  - Randomized to CGM or usual care for 24 weeks.
  - Primary outcome change in A1C, secondary outcome hypoglycemia.
  - A1C decreased by 1% with MDI+CGM, 0.4% with just MDI
  - Duration of hypoglycemia <70 mg/dl was 43 min/d with MDI+CGM, 80 min/d with just MDI.
  - Bottom line: MDI+CGM had better glycemic control with fewer lows!





- Lind et al looked at 161 type 1 diabetics on MDI in an open-label crossover trial
  - A1C>7.5% (mean 8.6%), mean age 44, mean diabetes duration 22 years.
  - Each patient had 24 weeks of MDI+CGM and MDI alone, separated by a 17 week "wash out" period.
  - Mean A1C 7.92% w/ MDI+CGM, 8.35% w/ MDI alone (A1C difference 0.39%).

RW Beck, T Riddlesworth, K Ruedy et al. JAMA. 317:371-8, 2017.
M Lind, W Polonsky, IB Hirsch et al. JAMA. 317:379-87, 2017.

Implications of New Diabetes Technology

- Hybrid closed loop insulin delivery system is another step towards an artificial pancreas→ potential to improve glycemic control, decrease risk of severe lows, and perhaps improve quality of life.
- Continuous glucose monitoring improves QOL:
  - Reduces the need to check finger stick BGs multiple times a day
  - Helps to eliminate some of the disease-associated work and stress
  - Protects patients from hypoglycemia.

Case 4

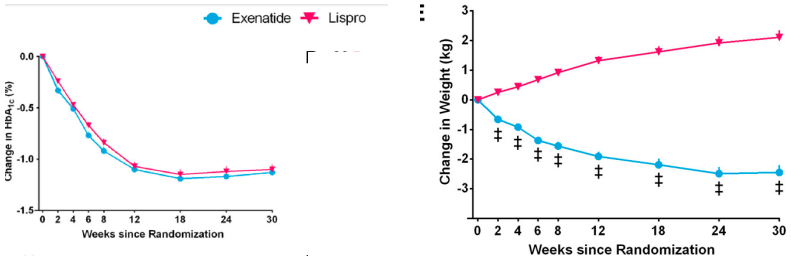
- 72 y.o. gent with diabetes for 5 years and worsening glycemic control despite titration of insulin doses. Well controlled HTN, obesity, MS, otherwise well.
- Notes that he is constantly hungry and tries to snack on fruit throughout the day to be "healthy"
- Regimen: Metformin 1g BID AC, Glargine 80 units QPM, Aspart 30 TID AC.
- Exam reveals BMI 31, weight 100 kg
- Labs BGs 130's-low 200's over course of day, A1C is 8.6%.
- What is his A1C target?
- How can we get there?

Case 4

- Generally healthy, so would aim for tighter A1C (maybe <7.5%) if can get there without lows.
- High insulin doses (>1 unit/kg bw/day) may reflect severe insulin resistance (due to age, inactivity) or may reflect excess insulin use with resultant eating!
- Can try to cut insulin doses back to 1 unit per kg BW per day, or try to switch aspart to a GLP-1RA.

Basal Insulin plus GLP-1RA

- Diamant performed 30 week open label study of 627 patients not at A1C goal on glargine plus metformin.[1]
  - Randomized to mealtime lispro or BID exenatide.
  - Fewer nocturnal lows with exenatide but more GI side effects.



- Meta-analysis revealed equal glycemic control with lower risk of hypoglycemia (0.67) and reduction in weight (-5.66 kg) compared with basal-prandial insulin therapy. [2]

[1]Diamant et al. Diabetes Care 2014. 37:2483-90
[2]Eng et al. Lancet. 2014. 384:2228-34

Management of obese patients with severe insulin resistance

- Ensure no additional contributors to ↑'d resistance (unstable angina, infection, etc)
- Lifestyle needs to be stressed
  - Low carb snacks and reasonable carb portions in meals. Don't forget the protein!
  - Weight loss- even a little- helps a great deal
  - Exercise improves insulin sensitivity
    -Walking -Weights
- Ensure that they are not "overinsulinized"
  - Most patients with T2DM get adequate control with 1 unit/kg BW/day.
  - Consider cutting dose and observing if this improves BG's.
  - Check 2-3AM BG to ensure that they do not have nocturnal lows→ via Somogyi effect can get AM highs.
- Use antihyperglycemic medications that help with weight loss
  - GLP-1 receptor agonists decrease appetite.
  - SGLT2 inhibitors cause dumping of glucose in urine. (Can add a DPP-4 if need additional A1C lowering and don't want injections).
- Not a fan of concentrated insulins
- Gastric bypass very effective if health is okay.

Conclusions: Challenges in DM in LTC

- Glycemic targets in our older patients should be modified based upon burden of comorbidity, functional status, and life expectancy.
  - Target A1C should generally be 7.5-8%
  - Consider A1C of 7-7.5% in healthy older adults w/ few comorbidities and good functional status.
  - Consider A1C of 8-9% for older adults w/ multiple comorbidities, poor health or limited life expectancy
- Hypoglycemia can be minimized by choosing agents with lower hypoglycemic risk, simplifying regimens, and limiting use of insulin sliding scale.
  - Can also decrease risk in insulin deficient patients with use of an insulin pump or CGM
  - Treat lows using the rule of 15.
- Insulin resistance may remind us to search for precipitants (infection, etc), ensure patient is not overinsulinized, and aim to use agents that help with weight loss.
  - Even in our elderly, lifestyle must be stressed.

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California Association of Long Term Care Medicine

43rd Annual Meeting
Quality Through Best Practices

California Association of Long Term Care Medicine
Promoting quality patient care through medical leadership and education

Managing Metabolic Syndrome and Obesity

Timothy L. Gieseke MD, CMD
Associate Clinical Professor, UCSF
Post-Acute Care Specialist and Medical Director

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Speaker Disclosure Statement

Dr. Tim Gieseke has no relevant financial relationships with commercial interests to disclose.

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Objectives

- Classification of obesity & potential complications
- Metabolic syndrome role in obesity complications.
- Management options:
  - Assessment tools
  - Interventions for health improvement.
  - Partnering with community and web based resources

Culture Change: Obesity

- The new “Normal”
- Average Weight gain ~ 30# over last 40 years
- Plate & portion sizes have increased
- Disproportionately affects women
- Closely linked with 7 of the top leading causes of death
- Mortality similar to life time cigarette smoking
- Parents may outlive children
- All of our tissues become “Fatter”
- Toxic “Metabolic Changes” are common

"Toxic" Metabolic Abnormalities

- > Insulin resistance
- > Adipocyte cytokines
- > Atherogenic Lipid changes
- > **White Adipocytes** expansion of gut mesentery and gut obesity, rather then healthy more metabolically active **Brown adipocytes**.
- > BP (multiple mechanisms)
- > Sympathetic nervous system activity.
- > Endothelial dysfunction(reduced vaso-dilation)
- > Pro-inflammatory (> CRP)
- > Pro-thrombotic state

Co-morbid Complications

- Type 2 DM
- CAD, HBP, HFpEF (Diastolic CHF), A. Fib
- Obstructive Sleep Apnea, Pulmonary HTN
- CKD, Kidney stones, Incontinence
- Stroke & Dementia
- Pulmonary Embolus & DVT
- Fatty liver, Steatosis, & Cirrhosis
- DJD (Back, Hips, Knees), Deconditioning, Falls, Fractures, & Frailty

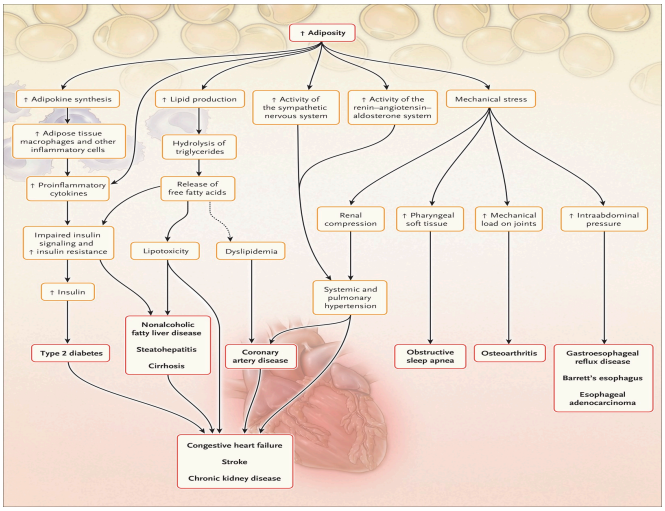
Co-Morbid Complications

- Cancers:
  - Esophageal (Barret's Esophagus), Breast, Ovary, Cervical, Colon, Liver, Bile, Kidney, Thyroid, & Leukemia
- Mental illnesses:
  - Depression, Anxiety Disorders, PTSD, Adjust D.O's
- Infections
  - Influenza, Post-op skin & soft tissue
- Health Stigma:
  - Education, Employment, Health Care
- > Health Care costs, # Sick days, & 3x > Disabled pensioner.

Obesity & Reduced Hospice Use (AIM Feb 7, 2017)

- Retrospective cohort of 5,677 community dwelling Medicare fee for service beneficiaries who died 1998-2012.
- The greater the BMI
  - < likely to enroll in hospice
  - < duration on hospice
  - < likely to have in-home death
- If morbidly obese, 15% < enrollment, 4.3 days < duration, & 6.3% < in-home death
- Potential Reasons:
  - Dying trajectory less obvious
  - More difficult to open cases and sustain care at home

Some Pathways through Which Excess Adiposity Leads to Major Risk Factors and Common Chronic Diseases.



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Reasons for Obesity Epidemic

- > Fast food access
- > Soft drinks
- < Physical activity in our occupations
- > Leisure time filled w/ sedentary activities
  - TV, computers, smart phones, spectators, etc.
- > Food Portions at meals / Snacks / Deserts
- > Medications associated with weight gain
- < Sleep

NCEP ATP3 Definition of Met. Syn. (#Abnormalities: 3-5 for dx)

- Glucose >100 or Drug Rx for **Pre-DM or D.M.**
- Low HDL Cholesterol
  - < 40 mg/dl in Men
  - < 50 mg/dl in Women
- High Triglycerides > 150 mg/dl or Drug Rx
- Abdominal obesity (Waist circumference)
  - > 102 cm (40 inches) for men*
  - >88 cm (35 inches) for women*
- HBP > 130/85 or Drug Rx for HBP
- * Asian patients: > 90 cm men, > 80 cm women. European men > 94 cm (37 inches).

Ethnic specific values for waist circumference

Ethnic group	Waist circumference (as measure of central obesity)
Europids*	
Men	≥94 cm
Women	≥80 cm
South Asians	
Men	≥90 cm
Women	≥80 cm
Chinese	
Men	≥90 cm
Women	≥80 cm
Japanese	
Men	≥90 cm
Women	≥80 cm
Ethnic South and Central Americans	Use South Asian recommendations until more specific data are available
Sub-Saharan Africans	Use European data until more specific data are available
Eastern Mediterranean and middle east (Arab) populations	Use European data until more specific data are available

Data are pragmatic cutoffs and better data are required to link them to risk. Ethnicity should be basis for classification, not country of residence.
* In USA, Adult Treatment Panel III values (102 cm male, 88 cm female) are likely to continue to be used for clinical purposes. In future epidemiological studies of populations of Europid origin (white people of European origin, regardless of where they live in the world), prevalence should be given, with both European and North American cutoffs to allow better comparisons.

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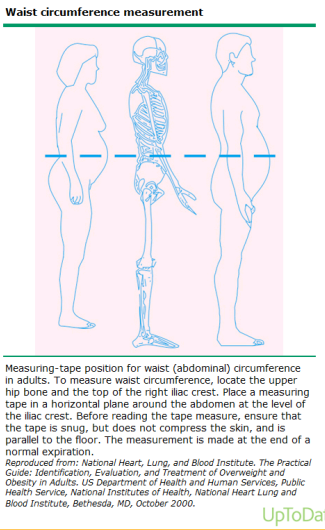
4 other International Definitions

- Differ by requirements for:
  - Insulin resistance or fasting hyperinsulinemia in top 25% quartile
  - Presence of co-morbidities commonly associated with insulin resistance & obesity
  - BMI > 30
  - > Waist hip ratio
    - 0.9 for Men
    - 0.85 for Women



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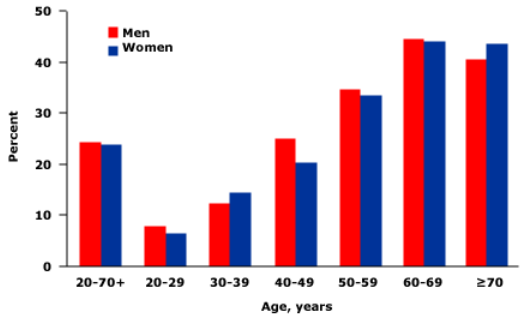
Prevalence of NCEP ATP III metabolic syndrome among subjects in the NHANES III survey, by age



Adapted from: Ford ES, Giles WH, Dietz WH. Prevalence of the metabolic syndrome among US adults: findings from the third National Health and Nutrition Examination Survey. JAMA 2002; 287:356.

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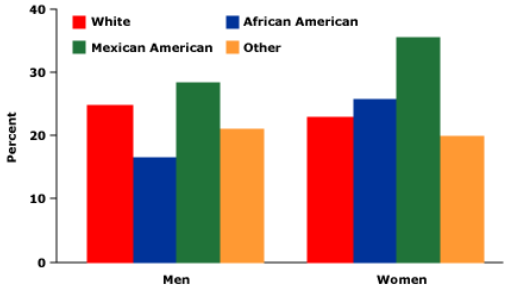
Prevalence of NCEP ATP III metabolic syndrome among subjects in the NHANES III survey by race/ethnicity and sex



Adapted from: Ford ES, Giles WH, Dietz WH. Prevalence of the metabolic syndrome among US adults: findings from the third National Health and Nutrition Examination Survey. JAMA 2002; 287:356.

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Classification of overweight and obesity by BMI, waist circumference, and associated disease risk

	BMI kg/m²	Obesity class	Disease risk* relative to normal weight and waist circumference	
			Men ≤102 cm (≤40 in) Women ≤88 cm (≤35 in)	>102 cm (>40 in) >88 cm (>35 in)
Underweight	<18.5		-	-
Normal¶	18.5 to 24.9		-	-
Overweight	25.0 to 29.9		Increased	High
Obesity	30.0 to 34.9	I	High	Very high
	35.0 to 39.9	II	Very high	Very high
Extreme obesity	≥40	III	Extremely high	Extremely high

BMI: body mass index.
* Disease risk for type 2 diabetes, hypertension, and cardiovascular disease (CVD).
¶ Increased waist circumference can also be a marker for increased risk even in persons of normal weight.

Reproduced from: Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults--The Evidence Report. National Institutes of Health. Obes Res 1998; 6:515.

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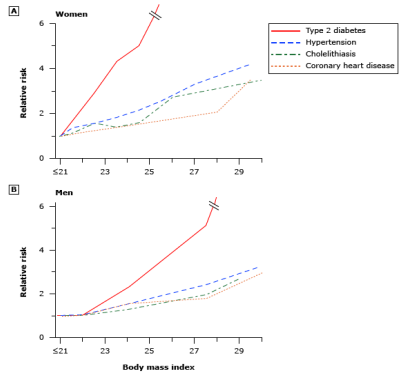
Body mass index and the risk of disease



Increasing body mass index (BMI, kg/m²), even within the normal range of BMI (21 to 24.9), is associated with an increased risk of type 2 diabetes, hypertension, coronary heart disease, and cholelithiasis. Panel A shows data for women in the Nurses' Health Study, initially 30 to 55 years of age, who were followed for up to 18 years. Panel B shows data for men in the Health Professionals Follow-up Study, initially 40 to 65 years of age, who were followed for up to 10 years.

Data from: Willett WC, Dietz WH, Colditz GA. Guidelines for healthy weight. N Engl J Med 1999; 341:427.

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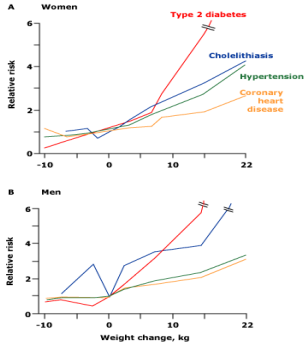
Adult weight change and the risk of disease



Even a modest increase in weight as an adult is associated with an increased risk of type 2 diabetes, hypertension, coronary heart disease, and cholelithiasis. Panel A shows data for women in the Nurses' Health Study, initially 30 to 55 years of age, who were followed for up to 18 years. Panel B shows data for men in the Health Professionals Follow-up Study, initially 40 to 65 years of age, who were followed for up to 10 years.

Data from: Willett WC, Dietz WH, Colditz GA. Guidelines for healthy weight. N Engl J Med 1999; 341:427.

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Clinical and laboratory data for the evaluation of overweight patients

Height, in or cm	_____
Weight, lb or kg	_____
Calculated BMI, kg/m^2	_____
Waist circumference, in or cm	_____
Blood pressure SBP/DBP, mmHg	_____
Fasting serum triglyceride, mg/dL or mmol/L	_____
Serum HDL cholesterol, mg/dL or mmol/L	_____
Fasting blood glucose, mg/dL (or glycated hemoglobin [A1C], %)	_____
Are there symptoms of sleep apnea?	_____
Are there medication(s) that increase body weight?	_____
Is there regular physical activity?	_____
Are there other etiologic factors?	_____

BMI: body mass index; SBP: systolic blood pressure; DBP: diastolic blood pressure; HDL: high-density lipoprotein.

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Medications associated with weight gain

Glucocorticoids (prednisone)
Diabetes medications (insulin, sulfonylureas, thiazolidindiones, meglitinides)
First-generation antipsychotics (thioridazine)
Second-generation antipsychotics (risperidone, olanzapine, clozapine, quetiapine)
Neurologic and mood stabilizing agents (carbamazepine, gabapentin, lithium, valproate)
Antihistamines (especially cyproheptadine)
Antidepressants (paroxetine, citalopram, amitriptyline, nortriptyline, imipramine, mirtazapine)
Hormonal agents (especially progestins, eg, medroxyprogesterone)
Beta-blockers (especially propranolol)
Alpha-blockers (especially terazosin)

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Categorization of anti-depressants, anti-convulsants, and anti-psychotic drugs by their effects on body weight

Produce weight loss
Bupropion
Venlafaxine
Desvenlafaxine
Topiramate
Zonisamide
Lamotrigine
Ziprasidone
Are weight neutral
Haloperidol
Aripiprazole
Produce weight gain
Tricyclic antidepressants*
Monoamine oxidase inhibitors
Paroxetine
Escitalopram
Lithium
Olanzapine
Clozapine
Risperidone
Carbamazepine
Valproate
Divalproex
Mirtazapine

* Nortriptyline, amitriptyline, doxepin.

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Basic Therapeutic Interventions

- Portion control is key issue (plate size).
- Emphasize foods less calorically dense that quench hunger
  - Vegetables, Salads, Fruits (Apple slices), Mixed non-salted nuts.
  - Diets: Mediterranean, DASH, "Healthy Diet for All"
  - Commercial Programs: Wt Watchers & Jenny Craig
- Graded exercise program complements diet efforts, but alone are ineffective
- Behavioral therapy & counseling
- Treatment of co-morbidities per guidelines
- Cigarette Cessation (2x > risk mortality if obese)
- Drug Therapy
- Bariatric surgery

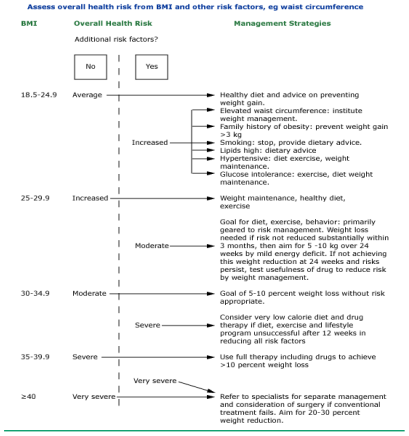
Basic Therapeutic Interventions

Table 1. Recommended Components of a High-Intensity Comprehensive Lifestyle Intervention to Achieve and Maintain a 5-to-10% Reduction in Body Weight.*

Component	Weight Loss	Weight-Loss Maintenance
Counseling	≥14 in-person counseling sessions (individual or group) with a trained interventionist during a 6-mo period; recommendations for similarly structured, comprehensive Web-based interventions, as well as evidence-based commercial programs	Monthly or more frequent in-person or telephone sessions for ≥1 yr with a trained interventionist
Diet	Low-calorie diet (typically 1200–1500 kcal per day for women and 1500–1800 kcal per day for men), with macronutrient composition based on patient's preferences and health status	Reduced-calorie diet, consistent with reduced body weight, with macronutrient composition based on patient's preferences and health status
Physical activity	≥150 min per week of aerobic activity (e.g., brisk walking)	200–300 min per week of aerobic activity (e.g., brisk walking)
Behavioral therapy	Daily monitoring of food intake and physical activity, facilitated by paper diaries or smart-phone applications; weekly monitoring of weight; structured curriculum of behavioral change (e.g., DPP), including goal setting, problem solving, and stimulus control; regular feedback and support from a trained interventionist	Occasional or frequent monitoring of food intake and physical activity, as needed; weekly-to-daily monitoring of weight; curriculum of behavioral change, including problem solving, cognitive restructuring, and relapse prevention; regular feedback from a trained interventionist

* Data are from the Guidelines (2013) for the Management of Overweight and Obesity in Adults, reported by Jensen et al.[39] The guidelines concluded that a variety of dietary approaches that differ widely in macronutrient composition, including ad libitum approaches (in which a lower calorie intake is achieved by restriction or elimination of particular food groups or by the provision of prescribed foods), can lead to weight loss provided they induce an adequate energy deficit. The guidelines recommended that practitioners, in selecting a weight-loss diet, consider its potential contribution to the management of obesity-related coexisting disorders (e.g., type 2 diabetes and hypertension). The guidelines did not address the possible benefits of strength training, in addition to aerobic activity. DPP denotes Diabetes Prevention Program.

A systematic approach to management based on BMI and other risk factors



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Medications Approved by the Food and Drug Administration for Long-Term Weight Management.

Table 2. Medications Approved by the Food and Drug Administration for Long-Term Weight Management.*

Drug	Main Mechanisms of Action	Dose	Study Duration	Mean Weight Loss†	Common Side Effects	Contraindications
			wk	*kg (%)*		
Orlistat[71]	Pancreatic and gastric lipase inhibitor; resulting fat malabsorption reduces net energy intake	120 mg before meals (three times a day)	52	Drug, 8.8 (8.8); placebo, 5.8 (5.8); PSWL, 2.6	Oily spotting, flatus with discharge, fecal urgency, oily evacuation, increased defecation, fecal incontinence	Pregnancy, chronic malabsorption syndrome, cholestasis
Lorcaserin[72]	Selective $5HT_{2C}$ receptor agonist; promotes satiety to reduce food intake	10 mg twice a day	52	Drug, 5.8 (5.8); placebo, 2.2 (2.2); PSWL, 3.2	In patients without diabetes: headache, dizziness, fatigue, nausea, dry mouth, constipation; in patients with diabetes: hypoglycemia, headache, back pain, fatigue	Pregnancy
Liraglutide[60]	GLP-1 agonist; delays gastric emptying to reduce food intake	Starting dose, 0.6 mg given subcutaneously; dose increased weekly by 0.6 mg as tolerated to reach 3.0 mg	56	Drug, 8.4 (8.0); placebo, 2.8 (2.6); PSWL, 5.3	Nausea, vomiting, constipation, hypoglycemia, diarrhea, headache, fatigue, dizziness, abdominal pain, increased lipase levels	Pregnancy, personal or family history of medullary thyroid cancer or multiple endocrine neoplasia type 2
Phentermine–topiramate[61]	Norepinephrine-releasing agent (phentermine), GABA receptor modulation (topiramate); decreases appetite to reduce food intake	Starting dose, 3.75 mg/23 mg for 2 wk; recommended dose, 7.5 mg/46 mg; maximum dose, 15 mg/92 mg	56	Drug, 8.1 (7.8) at recommended dose, 10.2 (9.8) at maximum dose; placebo, 1.4 (1.2); PSWL, 8.8	Insomnia, dry mouth, constipation, paresthesias, dizziness, dysgeusia	Pregnancy, hyperthyroidism, glaucoma, MAOIs, hypersensitivity to sympathomimetic amines
Naltrexone–bupropion[62]	Opioid antagonist (naltrexone), dopamine and norepinephrine reuptake inhibitor (bupropion); acts on CNS pathways to reduce food intake	1 tablet (8 mg of naltrexone and 90 mg of bupropion) daily for 1 wk; dose subsequently increased each wk by 1 tablet per day until maintenance dose of 2 tablets twice a day at wk 4	56	Drug, 6.2 (6.4); placebo, 1.3 (1.2); PSWL, 5.0	Nausea, constipation, headache, vomiting, dizziness, insomnia, dry mouth, diarrhea	Uncontrolled hypertension, seizure disorders, anorexia nervosa or bulimia, drug or alcohol withdrawal, use of MAOIs, long-term opioid use, pregnancy

* For each medication, weight-loss data are from a pivotal phase 3 trial submitted to the FDA for drug approval.[60-62,71,72] CNS denotes central nervous system, GABA gamma-aminobutyric acid, GLP-1 glucagon-like peptide 1, $5HT_{2C}$ 5-hydroxytryptamine 2C, and MAOI monoamine oxidase inhibitors.
† Data on placebo-subtracted weight loss (PSWL) are from a meta-analysis of studies.[59]

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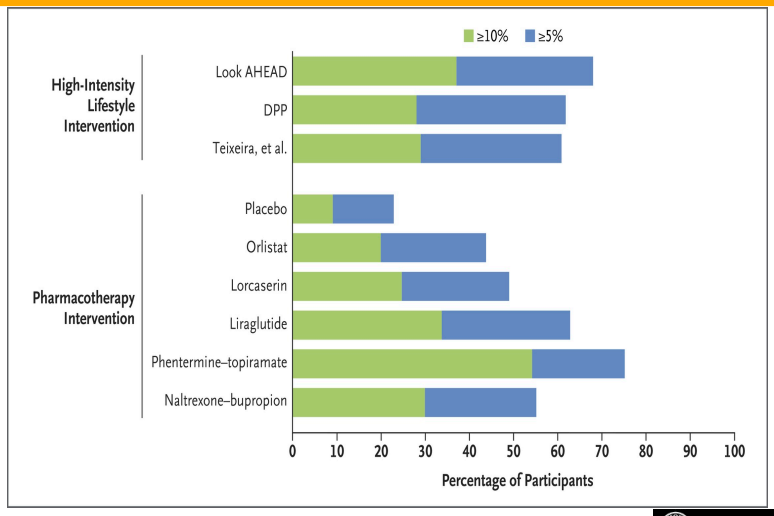
Weight Loss at 1 Year with High-Intensity Lifestyle Interventions or Pharmacotherapy Combined with Low-to-Moderate-Intensity Lifestyle Counseling.



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Surgical Interventions for Obesity

- Laparoscopic Adjustable Gastric Banding (LAGB)
  - Least invasive, safest, & reversible
  - High re-op rate and reduced long term efficacy so seldom done now (< 6 % of obesity procedures in 2013)
- Roux-en-Y
  - Creates upper gastric pouch connected to Jejunum with 95% of food bypassing stomach and duodenum
  - ~ 25 % wt. loss at 1 year
- Vertical-sleeve Gastrectomy
  - Removes 70% of stomach w/acceleration of gastric emptying
  - ~ 30% wt. loss at 1 year

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Benefits & Risks of Surgery

- > Remission rates for **Diabetes** at 3 years
  - 5% for intensive medical therapy (IMT)
  - 24% for IMT combined with vertical-sleeve gastrectomy
  - 38% for IMT combined with Roux-en-Y gastric bypass
- **Mortality**: 0.1, 0.2, & 0.3% for Lap Band, Vertical-sleeve, and Roux-en-Y
- Serious Periop **ADEs**: 1, 5, & 5% respectively
- Long term efficacy likely for: Vertical-Sleeve and Roux-en-Y.
- NEJM Feb 2017, @ 5 years, gastric bypass vs. IMT for DM w/BMI (27-43) had much > improvement in DM, lipid, Wt., and QOL measures.

Team Approach (KJ Page, T Clark Presentation & Case Studies)

- Engage your Team:
  - Physicians, Nurses, CNAs
  - Admissions Coordinator
  - Dietary
  - Facilities engineer
  - MDS Coordinator – Effective Care Conferences
  - Clinical Psychologist
  - Activities / Community Developer
  - Rehabilitation Team
- Partner with centers of expertise
  - Center for Well Being
  - Hospital Bariatric Programs
  - Community Weight Loss Programs
  - Internet Behavioral Health programs targeted for overweight persons
  - Healthy Eating Active Living Community Health Initiative in Sonoma County (**HEAL**)

In Conclusion

- Obesity & Metabolic Syndrome are common, but wellness is possible.
- 5-10% weight loss is possible with intensive medical therapy(IMT) programs.
  - < risk for diabetes, HBP, CVDZ & other complications of obesity.
- Long term drugs are an option for high risk patients & promote > weight loss than IMT alone.
- Surgery should be consider for those who remain seriously obese
  - BMI > 40 or
  - > 35 with complications (DM, HBP, CAD)
- Treat complications per guidelines.
- Cigarette cessation (double risk of dying)
- Clinical evaluation and assessment tools for care planning
  - Identify weight promoting meds
- Provide behavioral health and counseling.
- Partner with local centers of expertise.

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Best Practices in Facility Bariatric Care

KJ Page RN-BC, LNHA & Traci Clark, RN

CALTCM 2017

Speaker Disclosure Statement

Traci Clark has no relevant financial relationships with commercial interests to disclose.

KJ Page has no relevant financial relationships with commercial interests to disclose.

Bariatric Risk Management

Equipment and Training
Team Approach
Care Planning

Meeting the Needs

Bariatric
Defined by World Health Organization (WHO)

Overweight by more than 100 pounds
Body Mass Index (BMI) 40 or greater
Weighs more than 300 pounds (137 kg.)

National Health Crisis

Updated September 1, 2016:

Adult obesity rates now exceed 35 percent in four states, 30 percent in 25 states and are above 20 percent in all states.

- Louisiana has the highest adult obesity rate at 36.2 percent and Colorado has the lowest at 20.2 percent. **California ranks 47th at 24.2 %**
- U.S. adult obesity rates decreased in four states (Minnesota, Montana, New York and Ohio), increased in two (Kansas and Kentucky) and remained stable in the rest, between 2014 and 2015.
- This marks the first time in the past decade that any states have experienced decreases — aside from a decline in Washington, D.C. in 2010

Obesity increases risk:

- Hypertension
- Diabetes
- Heart Disease
- Stroke and Respiratory problems / Sleep apnea
- Mobility restrictions
- Skin breakdown

Obesity is complex and difficult to manage

Providers need to assess equipment, environment and staffing provisions to ensure that the right accommodations and care can be safely delivered to meet the needs of bariatric patients/ residents.

Typical Equipment Needs

Bedrooms

- Armchair or stretcher chair up to 32” (105 cm) wide
- Bedpans, extra-wide
- Beds expandable up to 54” (135 cm) wide
- Bariatric Size friction reducing devices (air powered or slide sheets)
- Trapeze bar system over bed

Bathrooms

- Commode up to 42” (105 cm) wide
- Extra- capacity shower chair or shower stretcher

OTHER

CPR board and alert
EMS for bariatric Transport

Clothing and Other

- Extra-capacity clothing, slippers, incontinence pads and briefs
- Slings that are appropriately designed and sized (1x, 2x, 3x)
- Tape measures, appropriately scaled for measuring special medical supplies, for example, longer needles, wider chairs and larger blood pressure cuffs.

Mobility Aids

- Extra capacity floor and/or ceiling lifts
- Standing and raising aids (SARAs) that are extra capacity
- Step stool with extra size and weight capacity.
- Stretchers: Extra-wide with 1000 pound (455kg.) capacity
- Walkers: extra-capacity and extra-width
- Wheelchairs in various widths (26', 28" and larger)

Tips:

It may be more cost effective to LEASE rather than buy some equipment.

Assess each room: plan on space for several pieces of equipment and up to six (6) staff silmutaneously accomplishing tasks.

Well developed staff training protocols including mechanical lifts and body mechanics.

Each mechanical lift and slings clearly marked with weight capacity, HOW TO USE instructions and Maintenance & Inspections Protocols.

Bariatric Patients Receive Suboptimal End of Life Care

- Study published: Annals of Internal Medicine Feb 7 2016
- Diminished use of Hospice Services
  - Patients with BMI of at least 40 kg/m2 had predicted probability of hospice enrollment of 23.1% vs 38.3% when BMI of 20 kg/m2
  - Based on Medicare Claims
    - Decreased hospice and significantly fewer deaths in home.

Bariatric Care – Best Success is an expanded Team Approach

- Interdisciplinary approach integrating nursing, dietary, and psychosocial care.
- Physical and /or occupational therapy
- Intensive skin care and management (skin folds and other areas 'out of reach').

Psychosocial Concerns

- Self-esteem
- Age related (bariatric patients tend to be younger)
- Social isolation
- Mobility related isolation (Chair fast, bed fast)

Resident Rights

- Life-style habits are often the most difficult to change- despite motivation and risks.
- Residents have the right to eat what they choose when they choose.
- Family/friends bringing food- encourage but can't force 'compliance' with diet.
- Support but do not chastise.

Planning Guide

- Blood Pressure cuffs, gowns, abdominal binders, Needles, slippers
- Ambulatory/Mobility aids
- Bathing equipment
- Beds/ mattresses/transportation
- Ceiling lifts
- Commodes/shower chairs
- Lateral transfer aids
- Repositioning systems
- Powered lifts
- Standing assist aids
- Transfer/dependency chairs and cushions
- Wheelchairs

Medical Conditions increase risk during transfer

- Severe Pain/discomfort
- Hip and knee replacements, joint instability, history of falls, fractures, contractures and spasms
- Severe Edema, wounds, diaphoresis, poor skin integrity
- Postural Hypotension, paralysis/paresis
- Unstable spine/severe Osteoporosis
- Splints, traction,
- Respiratory/cardiac compromise
- Amputation
- Stomas, tubes
- Sleep Apnea –tubes, equipment

Helpful Tips for Safe Bariatric Handling Quiz

- 1. What body mass index (BMI) is considered morbid obesity?
  - A. 20
  - B. 30
  - C. 40
  - D. 50

2. Which of the following medical conditions need to be considered when moving and handling bariatric patients?

A. Hip/knee replacement
B. History of Falls
C. Severe Osteoporosis
D. All of the Above

3. Which of the following is NOT a reason to consider buying versus renting specialized equipment?

A. Number and frequency of bariatric admissions
B. Purchase cost
C. How many staff knows how to use equipment.
D. Rental Costs

4. If any caregiver is expected to lift more than 35 pounds of patient's weight, that patient is considered to be fully dependent: use an assistive device.

A. TRUE
B. FALSE

5. Many bariatric patients have poor heat dissipation and increased perspiration. Two methods used to minimize this include:

A. Use low –air loss mattresses
B. Use specialty Mattresses
C. Draw sheet with air assisted device on top
D. A & B only

Answer Key

1. C- BMI of40 + = Bariatric

2. D- All of the above need consideration

3. C- How many staff knows how to use equipment is NOT a consideration in the Buy v Lease discussion.

4. True. Use a lift to protect staff and resident if 35% or more wt. managed by staff.

5. D- A&B only. Specialized or low air loss mattresses help dissipate heat.

Links to Resource Guides

- Bariatric Technology Resource Guide
- Special Handling and Movement Challenges (pp. 1-13) (Word)
  Appendix A: Assessment Criteria (p. 14)
  Appendix B: Bariatric Algorithms (pp. 15-22)
  Appendix C: Equipment Checklist (p. 23)
  Appendix D: Policy Template (pp. 24-29)
- State of Obesity
  http://stateofobesity.org/adult-obesity/

VA Sunshine Healthcare Network Safe Bariatric Patient Handling Toolkit
http://www.visn8.va.gov/patientsafetycenter/safePtHandling/toolkitBariatrics.asp

Sizewise Continuum of Care: http://sizewise.com/products

SRScales by SR Instruments, Inc. for Long Term Care:
https://srinstruments.com/medical-scales

KMS Equipment: http://www.kingmedicalsupply.com
Lymphedema pump, BP Cuff, Bedside Commode.

Indee Lift: http://indeelift.com/

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Case Studies:
Best Practices in Bariatric Care
Dr. Tim Gieseke, MD, CMD
KJ Page, RN-BC, LNHA
Traci Clark, RN
CALTCM 2017

Speaker Disclosure Statement

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Ms. KJ Page has no relevant financial relationships with commercial interests to disclose.

Ms. Traci Clark has no relevant financial relationships with commercial interests to disclose.

Obesity Case Study Patient Care Conference Instructions

This care Conference occurs within 3 working days of admission.
It's ok to create new information in this care conference.

Potential roles for your team (Bolded are minimally expected participants).
You may have 1 person take 2 roles.

1. **Patient and "family" representative**
2. **Nursing services representative / MDS**
3. **CNA**
4. **Food Services Representative**
5. **Activities Representative**
6. **Social Services**
7. **Rehabilitation Services**
8. Attending Physician / Medical Director
9. Clinical Psychologist


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Creating a Patient Safety Chain
David Farrell, MSW, LNHA
Telecare Corporation
CALTCM 2017

Speaker Disclosure Statement

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What is a ***Bundle***?

- Structured way of improving *processes* of care
- A *set* of 3-5 evidence-based best practices
- When performed ***collectively and reliably***, have been proven to improve patient outcomes

What Makes a ***Bundle*** so Special?

Three Common Elements –

- The method of execution – with complete consistency
- The **reinforcing nature** of the best practices contained within the bundle
- The understanding that **all** of the best practices are necessary for the bundle to succeed

IHI, 2016

Is a Bundle Just a Checklist?

Much more than a checklist –

- Cohesive unit of steps taken together
- Performed uniformly not sequentially
- Measured by all or nothing – no partial credit
- Smaller than a checklist
- Higher level of accountability tied to a bundle

IHI, 2016

Examples of a Bundles

The 5 Million Lives Campaign – Two Critical bundles

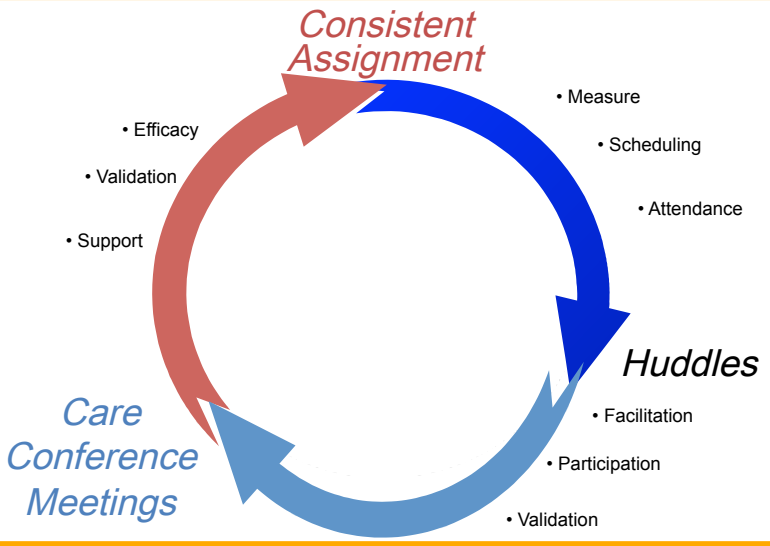
- Central Line Bundle – Set of five interventions
  - Proper hygiene; clean patients skin; find the best vein possible; check every day for infection; change IV line only when necessary
- Ventilator Bundle – Set of four interventions
  - Raising the head of the bed to 30 to 40 degrees; medication to prevent stomach ulcers; preventing blood clots when inactive; seeing if can breath on their own

IHI, 2016

Bundle of Organizational Best Practices

For Creating a Patient Safety Chain

Mutually Reinforcing Bundle



Consistent Assignment

Staffing Models

Consistent Assignment =

Consistently assigning the same caregivers to the same nursing home residents every day

Rotating Assignment =

Rotating caregivers from one group of residents to the next after a period of time

Support for Consistent Assignment

- Results from 13 research studies:
  - Enhanced relationships
  - Improved staff attendance
  - Improved staff, resident, family satisfaction
  - Lower staff turnover
  - Improved accuracy, timeliness:
    - screening and assessments
  - Improved clinical outcomes
  - Improved quality of life

Allow for individualized care

Same SNF – Different Units

Consistent Assignment:	Rotating Assignment:
Top Five Stressors	***Top Five Stressors***
• Preventing Falls	• Low Wage
• Stubborn Residents	• Abusive Residents
• Terminal Residents	• Heavy Workload
• Depressed Residents	• Disagreements w/ Coworkers
• Death as Emotional Stress	• Lack of Staff

Gruss, V. et al., 2004

4 on 2 off schedule
Even # of Caregiver assignments

	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S
Maria	1	1	1	1	O	O	1	1	1	1	O	O	1	1
Jen	2	2	O	O	2	2	2	2	O	O	2	2	2	2
Ellie	O	O	2	2	1	1	O	O	2	2	1	1	O	O

Supporting Consistent Assignment

- Measure it
- Charge nurse support
  - Support for residents staff find challenging
- Include nurses, housekeeping, activities, SW
- Revisit periodically for changes
- A Good Process
  - Fair distribution of work
  - Matches work for residents and staff

Process for Weighting and Balancing Assignments

Rate each resident on scale from 1 to 5 in each dimension

Resident	Physical	Non-physical	Total

Who Preaches the Benefits?

Support consistent assignment:

- Liability insurance companies
- ActionPact
- Pioneer Network
- CMS
- National Commission on Nursing Workforce for LTC
- Quality Improvement Organizations (QIOs)
- Culture change coalitions
- Advancing Excellence Campaign

Huddles

"The single biggest problem in communication is the illusion that it is taking place."

George Bernard Shaw

Communication Challenges

- Communication is spotty
- Task-centered policies
- Left to a few key people to inform many
- Changes in patient are reported but not acted on
- Not noticing the change in the patient until it is too late
- Those who know most are not asked to share

- Staff instability
- Siloes of departments = siloes of communication
- No system to review changes together
- Steep hierarchy stifles sharing information
- Lack of team approach
- Staff do not understand how or what information to share

Systems of Communication

- Stand-Up morning huddles with department managers, IDT and staff
- IDT and staff start of shift huddles
- IDT and staff mid-shift safety huddles
  - Standing root-cause analysis
- IDT and staff end of shift check in huddles

Huddle

- How long:
  - 10 - 15 minutes – varies according to issues
- How to do it:
  - CNAs provide relevant information
  - IDT listens and provides additional information
  - Problem-solve together and make a game plan

Huddle

What to Cover
- New patients
- "At Risk" patients
- Changes in condition
- Unplanned discharges, rehospitalizations
- Pending care transitions – discharges and room moves
- Incidents and accidents, safety hazards
- Clinical focus areas, QAPI PIPs
- Key information, news, announcements
- Kudos
- New staff members

MDS Section E Behavior

E0200. Behavioral Symptom - Presence & Frequency

Note presence of symptoms and their frequency

Coding:
0. **Behavior not exhibited**
1. **Behavior of this type occurred 1 to 3 days**
2. **Behavior of this type occurred 4 to 6 days,** but less than daily
3. **Behavior of this type occurred daily**

↓ **Enter Codes in Boxes**

☐	**A. Physical behavioral symptoms directed toward others** (e.g., hitting, kicking, pushing, scratching, grabbing, abusing others sexually)
☐	**B. Verbal behavioral symptoms directed toward others** (e.g., threatening others, screaming at others, cursing at others)
☐	**C. Other behavioral symptoms not directed toward others** (e.g., physical symptoms such as hitting or scratching self, pacing, rummaging, public sexual acts, disrobing in public, throwing or smearing food or bodily wastes, or verbal/vocal symptoms like screaming, disruptive sounds)

E0800. Rejection of Care - Presence & Frequency

Enter Code ☐

Did the resident reject evaluation or care (e.g., bloodwork, taking medications, ADL assistance) **that is necessary to achieve the resident's goals for health and well-being?** Do not include behaviors that have already been addressed (e.g., by discussion or care planning with the resident or family), and determined to be consistent with resident values, preferences, or goals.
0. **Behavior not exhibited**
1. **Behavior of this type occurred 1 to 3 days**
2. **Behavior of this type occurred 4 to 6 days,** but less than daily
3. **Behavior of this type occurred daily**

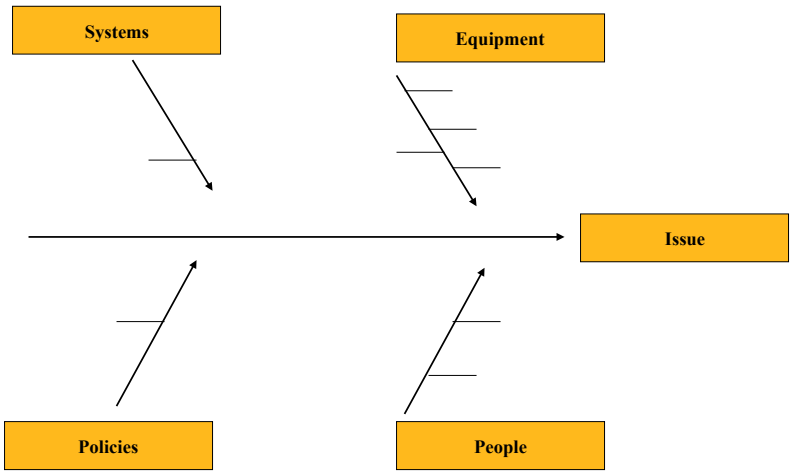
Which care is being rejected, and why?

Look for Unmet Needs

- Daily pleasure
- Hunger, thirst
- Too hot, too cold
- Tired
- Bored
- Overstimulated or understimulated
- Pain
- Scared

Cause and Effect Diagram

Critical Thinking – QI Closest to the Residents



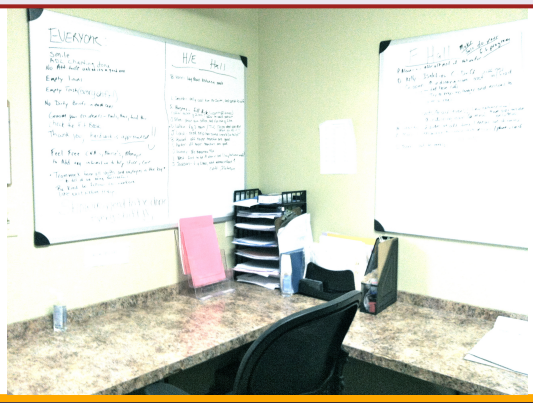
Facilitate Patient Safety Huddles

- Purpose – catch clinical changes early
- Build comfort and competence
  - Write down all the ideas
  - Prompt people
  - Compliment people
  - Set Rules - “No blame”
  - Promote constructive engagement
  - Redirect and keep it positive

Huddles - Keys to Success

- Be prompt, start on time
- Be prepared – discuss a productive meeting
- Designate people to cover call lights during the meeting
- Keep notes
- Check medical records in real time
- Get back to people who offered input

A huddle with a white board of the most important timely pertinent information needed to care for the residents today.



Care Planning

Involving Caregivers in Care Planning

Use this as a time to assess your Care Plan Meetings

- Are they a check-off?
- Does real problem-solving happen?
- Do people come on time, prepared, productive?
- Are meetings person-centered?
- Is the meeting held where it is easy for the resident and Caregiver to get to?

Make sure they are well-functioning meetings before you include CNAs

How to Involve Caregivers in Care Planning

Prepare them to Contribute:

• Caregivers routinely sharing at huddles helps them know what to share in care plan meetings

• Introduce Caregivers to meeting purpose/format

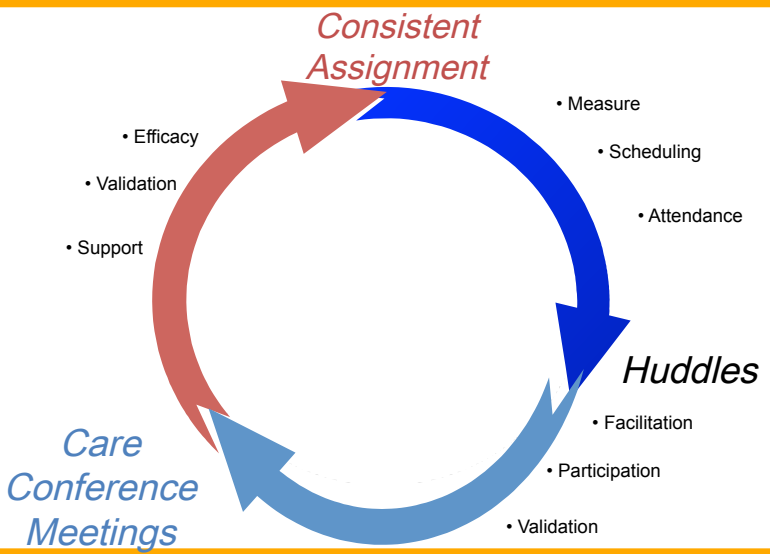
• Let Caregivers know what to share – ADLs, meals, mood, activities, mobility, preferences, behaviors

How to Involve Caregivers in Care Planning

Plan for their participation:

- Hold care conference where and when the Caregivers can attend
- Plan coverage of their residents
- In huddles, let Caregiver's know which residents are scheduled that day for care plan meeting

Mutually Reinforcing Bundle



Seniors Housing and Care Journal

"What's in Your Bundle?" Elliot and Barsness

- Compared full bundle-implementation SNFs vs partial bundle-implementation SNFs
- Studied communication patterns and collaboration and their impact on outcomes
- Full bundle-implementation SNFs – better quality outcomes and increased efficiency

2016 Volume 24: Number 1. Pages 3-19.

Creating a Patient Safety Chain

- Staffing model – that supports staff's ability to know the patients
- Venues – staff to talk together and share
- Structures – what to focus on and talk about
- Leadership – models respectful problem solving
- Psychological safety – CNAs and service staff can share without fear
- Organizational humility – for the IDT to listen and respond

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PA/LTC UPDATE #1
MACRA/Financing
Kerry Weiner, MD &
Alex Bardakh, MPP
CALTCM 2017


Speaker Disclosure Statement
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Dr. Kerry Weiner has no relevant financial relationships with commercial interests to disclose.
Alex Bardakh has no relevant financial relationships with commercial interests to disclose.
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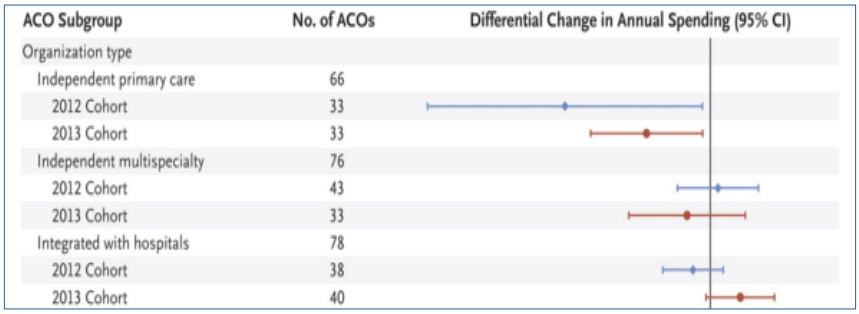
Discussion Outline

- Identify the APM Opportunity for LTC
- Review Performance of Alternative Payment Models
- Discuss models and trends in development
- Outline care design necessary for success

Why the Interest in LTC Clinician Initiated APMs?

- Superior performance in CMMI ACOs
- MACRA Commitments
- Accessible stable identifiable population
- Historical high cost of population
- Reduced patient compliance issues
- Providers have high impact in outcome
- History of poorly coordinated care

Differential Changes in Total Medicare Spending in 2013 According to Accountable Care Organization (ACO) Subgroup

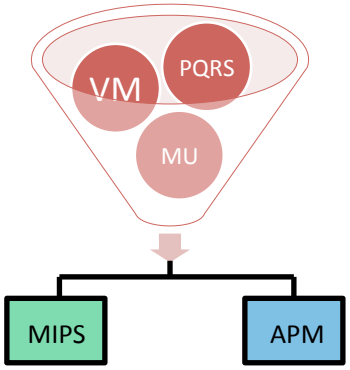


ACO Subgroup	No. of ACOs	Differential Change in Annual Spending (95% CI)
Organization type		
Independent primary care	66	
2012 Cohort	33	
2013 Cohort	33	
Independent multispecialty	76	
2012 Cohort	43	
2013 Cohort	33	
Integrated with hospitals	78	
2012 Cohort	38	
2013 Cohort	40	

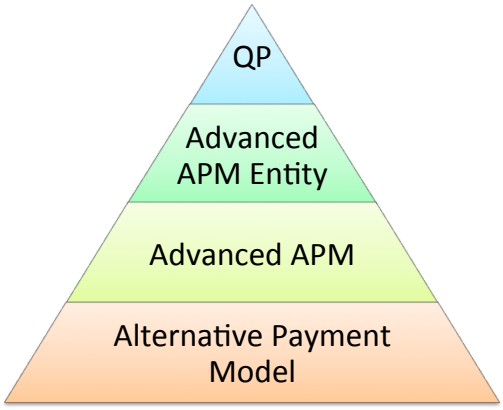
The NEW ENGLAND JOURNAL of MEDICINE

MACRA Physician Quality Payment Program

Starting in 2019….



Determining QP Status for APM



Limited Medicare Models Available

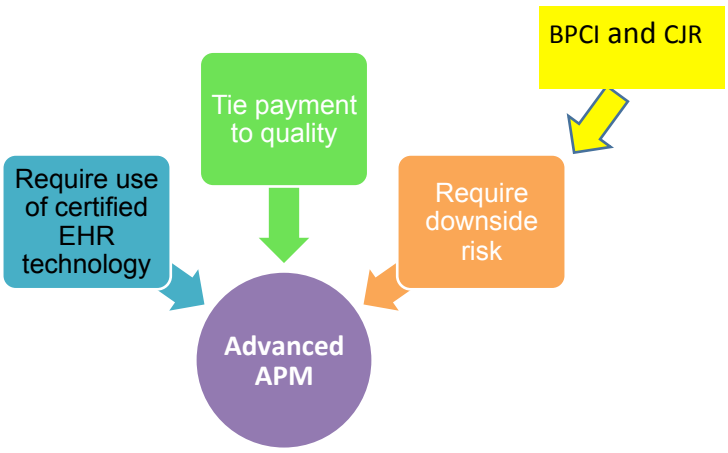
Models that qualify in 2017:

- **MSSP Track 2**
- **MSSP Track 3**
- **Next Generation ACO**
- **Comprehensive ESRD Care**
- **Oncology Care Model (two-sided track)**
- **Comprehensive Primary Care Plus (as medical home)**

Models that do not qualify in 2017:

- **MSSP Track 1**
- **Bundled Payments for Care Initiative**
- **Comprehensive Care for Joint Replacement**

Advanced APM Requirements



APM or Advanced APM

APM (BPCI, CJR)

- MIPS
  - 0.25% increase annually
  - +/- 4-9% to 2026
  - CPIA automatic 50% score
  - APM Quality Metrics

Advance APM (AMI, CABG, SHFTT)

- 5% bonus PFS to 2024
- 0.75% increase annually

Definition: Episodic Payment Model

- **Episode Payment:** Single price for all of the services needed by a patient for an entire episode of care (e.g., all of the inpatient and outpatient care they need after having a heart attack).
- **Key Dimensions:** Services included, time period and risk.
- **Major Payor:** CMS

CMS Sponsored and Proposed EPMs

Sponsored
- BPCI
- CJR

Proposed*
- AMI
- CABG
- SHFFT
- CR

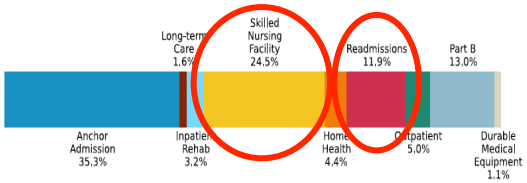
Comparison of BPCI Coverage: Model 2 and 3

	Hospital Stay	Inpatient provider Services	PAC Facility and HHA Services	PAC Provider Services	Related Readmissions
MODEL 2					
MODEL 3					

BPCI Success Strategy

- The biggest area of opportunity → **SNF utilization**
  - 20-25% of episode costs, with significant variation
- The biggest adverse outcome → **Readmissions**
  - 12% of all episode costs

Sample 90 - Day Medicare Spending Breakdown



BPCI Demographics

	Model 2	Model 3
Participation	75% Episodes 55% providers 98% Clinician Providers	20% Episodes 39% Providers
Participants	• 97% Hospitals • 3% PGPs	• 66% SNF • 30% HHA • 1% PGP
Common Bundles	• 75% MJRLE • 5% CHF • 26% COPD • 20% PN	• 95% HF • 74% COPD • 74% PN • 75% UTI

Financial Performance Marginally Successful

Metric	Model 2	Model 3	Comments
General	Trend ↓*	Trend ↓	$864 (3%)* MJLE Model 2
SNF	↓*	↓*	Model 2: MJLE, CVS* Model 3: HHA and SNF Participants
SNF LOS	↓	↓*	Model 3: HHA and SNF participants
HH	↑	↑	Model 3: ↓HHA Participants; ↑ SNF Participants

* Statistical significance

No Material Change in Quality

Metric	Model 2	Model 3	Comments
Return to Acute	NC	Trend ↓ ↑*	Model 3: HHA Participants Model 3: CV worsened
Mortality	NC	NC	
ED Use	NC	↓	Model 3: HHA participants
Function	↑	↓*	Model 3: MJRLE

BPCI Demographics

- **AMI** – Treated medically or with PCI
- **CABG**- Surgical revascularization irrespective of AMI Dx
- **SHFFT**- Hip/femur fracture fixation without replacement

- **Exclusively hospital participants**
- **Mandatory Program**
- **Prescribed quality metrics**
- **Quality score modifies up and downside risk**
- **Waivers: Fraud and abuse, 3 days SNF, Telemedicine, Incident to HH visits**
- **Expanded use of non-physicians as providers**
- **Enhanced data sharing**
- **Liberalized regulations on gainsharing**

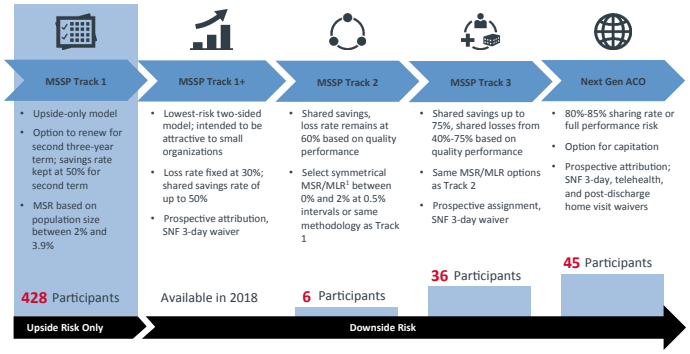
CMMI: Works in Progress

• Program	• Commitment
• CJR 2.0	• AAPM option
• BPCI 3.0	• AAPM option; new participants
• PAC provider EPMs	• PGPs, other participants
• Condition EPMs	• Focused on condition not site
• EPMs inside of ACOS	• Focused on specialists in ACOs

Medicare Shared Savings a Slow Transition to Risk

Overwhelming Majority of ACO Participants Still in Shallow Water

Continuum of Medicare Risk Models



[1] Minimum savings rate/minimum loss rate.

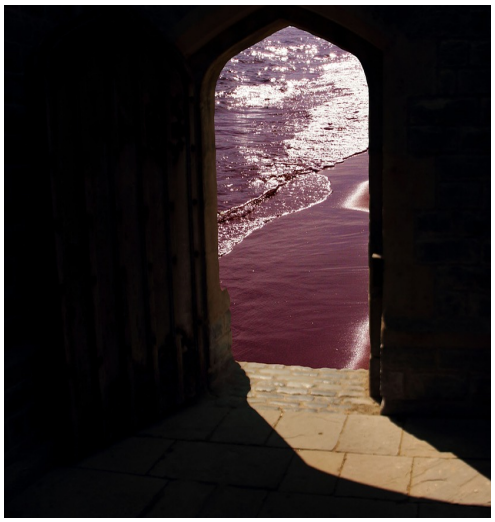
Source: CMS, "New Hospitals and Health Care Providers Join Successful, Cutting-Edge Federal Initiative that Cuts Costs and Puts Patients at the Center of Their Care," January 11, 2016; Becker's Hospital Review, "River Health ACO drops out of Next Generation program," February 12, 2016; CMS, "Next Generation Accountable Care Organization Model (NGACO Model)," January 11, 2016; CMS, "Open Door Forum: Next Generation ACO Model", March 17, 2015; Becker's Hospital Review, "River Health ACO drops out of Next Generation program," February 12, 2016; Health Care Advisory Board interviews and analysis.

ACO Study Results After 1-2 Years

ACO Model	Study	Care Savings % PB	Savings After Bonus %	Comments
Pioneer	McWilliams 2015	1.2	0.4	40% drop out rate
Pioneer	Nyweide 2015	0.3- 0.1	0	2 year study
MSSP	McWilliams 2016	1.4	?	2nd yr Cohort . 01%
MPGPD	Pope 2014	2*	0.8	10 physician group; sat. sig.

Modify Thresholds for Provider Qualification in APM Pathway

- Attributable Part B Dollars: 25-75%
- Attributable Patients: 20 – 50%



Coming Soon: Other Payer Options

- **Other payer APMs** = Medicare Advantage, Medicaid, private payer arrangements
- Applicable to performance year 2019
- Advanced APM criteria parallel to those for Medicare advanced APMs
- CMS would require clinicians to submit information to verify eligibility of arrangements

New Concepts Benefit Small Groups and PGPs

- performance compared to regional and national data

- Special Risk Options

- Prospective payment options

- Beneficiary alignment incentives

- Benefit enhancements

CPC+ Key Components

- Aligned with other payors
- Reduced risk options for small groups
- Outlier protection by risk adjustment
- Infrastructure Development Payment
- Prospective beneficiary panel
- Partial capitation

Clinical Pillars for Success

- Advanced Care Planning
- Medication Reduction/ Reconciliation
- Enhanced Presence
- Timely Performance Feedback
- Effective Handoffs/ Communications

CMS TOOL CHEST

- APC as QP
- 3 Day Waiver
- Telemedicine
- CCM Codes
- HCC Coding
- Metrics
- Home Health Care Expansion

APMS ARE HERE TO STAY

"Train has left the station"

MORE OPTIONS COMING

- Learn from MIPS
- Follow developments at CMS
- Stay alert for:
  - BPCI enhancements
  - New EPMs
  - Small Practice Options

But Most of the cars are empty!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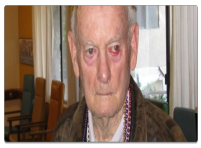
California Association of Long Term Care Medicine
Promoting quality patient care through medical leadership and education
Pain and Depression in the Nursing Home: Non-Medical Interventions
KJ Page
RN-BC, LNHA
CALTCM 2017

Speaker Disclosure Statement

KJ Page has no relevant financial relationships with commercial interests to disclose.

Older Adults and Depression Common Symptoms

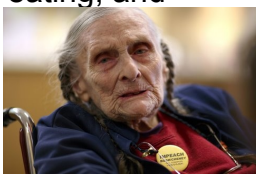


Feeling very tired, helpless, and hopeless.

Loss of interest in many of the activities and interests previously enjoyed.

Having trouble working, sleeping, eating, and functioning.

Feel this way day after day.



Depression vs. Normal Aging

Changes of "Normal" loss as life goes on—death of loved ones, retirement, stressful life events, or medical problems.

Feeling uneasy, stressed, or sad about these changes = NORMAL

After some period of adjusting, many older adults feel well again.

Depression is different.

Medical Condition that interferes with daily life and normal functioning.

It is NOT a normal part of aging, NOT a sign of weakness, and NOT a character flaw.

Many older adults with depression need treatment to feel better.

Is it Grief or Depression

Grief after loss of a loved one is a normal reaction to loss and generally does not require mental health treatment.

Grief that lasts a very long time or is unusually severe following a loss may require treatment.

Types of Depression

Major Depression—severe symptoms that interfere with ability to work, sleep, concentrate, eat, and enjoy life. Some people may experience only a single episode within their lifetime, but more often, a person may experience multiple episodes.

Persistent Depressive Disorder (Dysthymia)—depression symptoms that are less severe than those of major depression, but last a long time (at least two years).

Minor Depression—depression symptoms that are less severe than those of major depression and dysthymia, and symptoms do not last long.

Complications in Diagnosis

Depression may sometimes be undiagnosed or misdiagnosed in some older adults because sadness is not their main symptom.

They may have other, less obvious symptoms of depression or they may not be willing or be able to talk about their feelings.

An Older Adult has Higher Risk if:

- Female
- Chronic medical illness / pain
- Disability /physical or cognitive impairment
- Sleep poorly
- Lonely or socially isolated
- Personal or family history of depression
- Use certain medications
- Suffer from a brain disease
- Misuse alcohol or drugs
- Experienced stressful life events such as loss of a spouse, divorce, or taking care of someone with a chronic illness

Treatment Options: Medication

- Medications: antidepressants can work well to treat depression.
- Symptoms usually begin to improve within a week or two, they can take several weeks to work fully.
- As with most medications, many people experience some side effects, which in most cases can be managed or minimized.

Treatment Options: Psychotherapy

Psychotherapy (or "talk therapy") can be an effective treatment for depression.

Teaches new ways of thinking and behaving, and changing habits

Can help work through difficult relationships or situations

Research shows that cognitive-behavioral therapy (CBT), including "problem-solving therapy", may be an especially useful psychotherapy for treating and improving quality of life.

Research also suggests psychotherapy is as effective first treatment for depression as taking an antidepressant.

Some older adults prefer to get counseling or psychotherapy for depression rather than add more medications to those they are already taking for other

Complementary Therapies

Evidenced-based Examples include:

Yoga, exercise, and certain dietary supplements.

Physical activity is a helpful part of any treatment plan for depression, and may become easier to add as a person starts to feel better

Visit the National Center for Complementary and Integrative Health to learn more about these types of therapies: **www.nccih.nih.gov** .

Herbs and Supplements with evidence of efficacy in Depression

Lavender oil preparations taken internally, effective in generalized anxiety disorder: randomized, double blind comparison to placebo and paroxetine.

St. John's Wort is a plant that's native to Europe, western Asia, and northern Africa. Europeans commonly take St. John's wort as a way to treat depression, but the FDA hasn't approved the herb to treat the condition. Taking the herb has been linked with increasing the amount of serotonin. Serotonin is a feel-good chemical in the brain that's often low in people who have depression. Several antidepressants work by increasing the amount of serotonin in the brain.

Omega 3 Fatty Acids: a healthy form of fats found in fish and some limited vegetarian/vegan sources. According to the Mayo Clinic, researchers have found that people who have low levels of two brain chemicals found in fish oil supplements may be at an increased risk for depression. It is ideal to get a higher ratio of DHA to EPA, which are both types of omega-3 fatty acids.

Generalized Anxiety Disorder (GAD) Silexan® is more efficacious than placebo

Double- dummy trail of 539 adults with Hamilton Anxiety Scale (HAMA) total score >18 points

Received 160 or 80 mg Silexan, 20 mg Paroxetine, or placebo once daily for 10 weeks.

Primary efficacy endpoint was the HAMA total score reduction between baseline and treatment end.

HAMA Score decreased by 14/1 += 9.3 points for Silexan 160 mg/day,
12.8+ = 8.7 points for silexan 80mg/day,
11.3 += 8.0 points for paroxetine,
9.5 +=9.0 points for placebo
(Mean +=s.d).

Silexan 160 and 80 mg./day were superior to placebo in reduction HAMA total score ($p<0.01$)

Silexan showed a pronounced antidepressant effect and improved general mental health and health-related quality of life.

Incidence of adverse events (AEs) for Silexan were comparable to placebo and lower than for the active control paroxetine.

St John's Wort

According to the National Institutes of Health (NIH), St. John's wort may help milder forms of depression, although its effects haven't been conclusively proven either way.

A 2008 review of 29 studies on St. John's wort found that the plant was just as effective for treating mild to moderate depression as antidepressants yet resulted in fewer side effects.

On the other hand, the NIH's National Center for Complementary and Integrative Health sponsored two separate studies that found it wasn't better than a placebo for treating depression.

It's important to note that St. John's wort is known for interacting with lots of medications. This especially goes for blood thinners, birth control pills, and chemotherapy medications

A total of **836 drugs** (5767 brand and generic names) are known to interact with **st. john's wort**.

215 major drug interactions (1202 brand and generic names)

576 moderate drug interactions (3329 brand and generic names)

45 minor drug interactions (1236 brand and generic names)

Omega 3 Fatty Acids

In addition to taking fish oil supplements to get omega-3 fatty acids, you can also increase the amount of fish you eat. Eating fish three times a week can increase your omega-3 fatty acids without having to take supplements.

Keep in mind that some fish can have high levels of mercury. These include swordfish, tilefish, king mackerel, and shark. Avoid these in favor of lower mercury fish like light canned tuna, salmon, freshwater trout, and sardines.

Vegetarian Options for Omega 3 Fatty Acids are available.

Herbs and Supplements with Evidence of Efficacy in Depression

SAM-e (short for S-adenosylmethionine)a supplement is designed to act like a synthetic form of the body's natural mood-boosting chemicals. Caution against using Sam-e with anti-depressant drugs, can cause stomach upset and constipation in higher doses.

Folate: may be a link between low levels of folic acid (the synthetic form of folate) and people with depression. Taking 500 mcg of folic acid has been linked with improving the effectiveness of other antidepressants medications. Focus on consuming folate-rich foods daily. These include beans, lentils, fortified cereals, dark leafy greens, sunflower seeds, and avocado

Zinc is a nutrient linked with mental functions like learning and behavior. Low levels of blood zinc are more associated with depression, According to Nutrition Neuroscience, taking a 25 mg zinc supplement daily for 12 weeks can help reduce depression symptoms. Taking zinc supplements can also increase the amount of available omega-3 fatty acids in the body.

Myths and Misconceptions About Herbs and Depression

Even if marketed as being able to treat depression there are several herbs and supplements that haven't been proven as effective in treating depression.

Crataegus oxyacantha (hawthorn)
Eschscholzia californica (California poppy)
Ginkgo biloba
Matricaria recutita (chamomile)
Melissa officinalis (lemon balm)
Passiflora incarnate (maypop, or purple passionflower)

Electroconvulsive Therapy (ECT)

Severe depression that is very difficult to treat and does not respond to medication or psychotherapy.

A type of brain stimulation therapy, involves activating the brain directly with electricity, magnets, or implants.

Some of these treatments are still at the experimental stage.

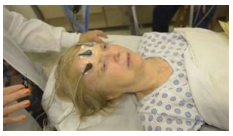
Persistent Depression despite adequate trials of medication, or severe -unable to eat, develop false, fixed beliefs ("delusions")

Used for almost 80 years, ECT remains the strongest and fastest-acting treatment for severe depression.

Despite ECT's efficacy and safety record in older adults, many misconceptions still persist among both patients and health care professionals.

ECT can be safe and highly effective for severe, treatment-resistant depression, as well as a variety of other serious mental disorders.

ECT may cause side effects, such as confusion and memory loss. Although these side effects are usually short-term, they can sometimes linger.



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Transcranial Magnetic Stimulation (TMS)

Noninvasive procedure that uses magnetic fields to stimulate nerve cells in the brain to improve symptom

FDA Cleared

Not ECT *(electroconvulsive therapy)*

Non-drug, No Drug Side Effects, Non-invasive

Long lasting symptom relief

Covered by most insurance

Over 1 million treatments delivered

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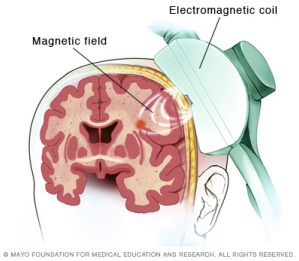
How TMS Works



- During a TMS session, an electromagnetic coil is placed against the scalp near the forehead. The electromagnet painlessly delivers a magnetic pulse that stimulates nerve cells in the region of the brain involved in mood control and depression. And it may activate regions of the brain that have decreased activity in people with depression.
- Though the biology of why rTMS works isn't completely understood, the stimulation appears to affect how this part of the brain is working, which in turn seems to ease depression symptoms and improve mood.
- Treatment for depression involves delivering repetitive magnetic pulses, so it's called repetitive TMS or rTMS.

TMS treatments

Patients are awake and alert during treatment

Can go back to their normal activities immediately after treatment

In-office treatment takes 37 minutes

Treatment is administered 5 days a week, for approximately 4 to 6 weeks

Depression: Useful Interventions (Care Plan)

Offer support, understanding, patience, encouragement, and /or spiritual care if desired.

Help keep track of daily routine and usual 'likes and dislikes'

Talk to him or her, and listen carefully.

Never ignore comments about suicide, and report them to the MD and Nursing for Immediate intervention and close monitoring.

Invite him or her out for walks or outings, and facilitate engaging in program activities and music.

Remind him or her that, with time and treatment, the depression will lift.

Break up large tasks into small ones, 'do what you can as you can'.

Don't try to do too many things at once.

Spend time with other people and talk about feelings.

Discuss decisions with others who know you well.

Do not make important life decisions until you feel better.

Pain and its perception: Assessment is Key!

Ouch: Nociceptive pain

Groan: Neuropathic pain

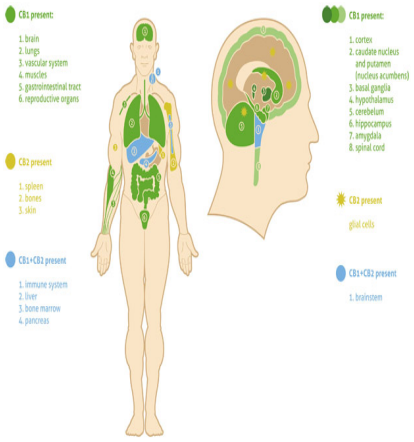
Pain and the mind-body connection Impact of Dementia

Neuroplasticity and pain

The links among depression, anxiety, and pain

Endocannabinoid System and Receptors

- The endocannabinoid system plays an integral role in our ability to respond to illness and injury, maintain/restore homeostasis, and promote health.
- Endocannabinoid synthesis is an adaptive response to cellular stress, aimed at re-establishing cellular homeostasis.
- PubMed search results for "endocannabinoid:"
  - 1993: 10 citations
  - 2014: 6,141 citations
  - 2017: 7,945 citations



Cannabinoid Receptors

CB_1 located in:

- CNS
- Testes, uterus
- Adipose and Connective tissue
- Endocrine and Exocrine glands
- Leukocytes
- Spleen and Liver
- Heart and GI Tract

CB_2 located in:

- Monocytes
- Macrophages
- B-cells
- T-cells
- Liver
- Spleen
- Tonsils
- CNS
- Enteric nervous system

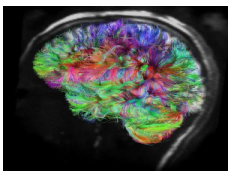
"Docs need help to ease opioid epidemic"

- "There are other ways to manage chronic pain, but insurance companies won't pay for them."
  - Dr. Robert Bonakdar, MD Director of Pain Management at Scripps Center for Integrative Medicine. **Integrative Pain Management, 2016**
- Chronic pain is a complex scenario that over time can shrink the brain, creating or worsening fatigue, insomnia, depression, anxiety, obesity and risk of suicide.
- Reducing pain and reducing dangerous drugs used for pain control requires not just a campaign or PIP (performance improvement plan/project), but an integrative, patient-centered approach to support someone whose entire existence is affected.

What is Neuroplasticity

The ability of the brain to reorganize itself and create new circuits in response to our environment and most remarkably in response to our thoughts.

Life-Long Plasticity: In recent decades, scientists have discovered the brain is plastic throughout our lives.



New Neuron Growth: recent research has shown that stem cells in the brain can continue to grow new neurons at any age.

Pain Relief Techniques

- Cold and heat Exercise Biofeedback
- Physical therapy and occupational therapy
- Mind-body techniques
- Yoga and tai chi Music therapy
- Therapeutic massage Chiropractic
- Acupuncture Topical pain relievers
- Psychotherapy Pain-relieving devices (T.E.Ns.)
- Herbal or nutritional pain relievers

Resources: Depression

National Institute of Health: www.nimh.nih.gov/health/publications/.

Mental Health Treatment Program Locator The Substance Abuse and Mental Health Services Administration (SAMHSA) - online resource for locating mental health treatment facilities and programs. **www.findtreatment.samhsa.gov/** .

NIHSeniorHealth.Gov aging-related health information easily accessible Visit at **www.nihseniorhealth.gov/**

National Institute of Mental Health
E-mail: nimhinfo@nih.gov Website: www.nimh.nih.gov

Resources: Pain

http://www.geriatricpain.org Geriatric Pain Helping clinicians assess and manage pain in older adults *Free evidence-based tools and best practices for clinicians working with older adults*

Lavender Oil Preparation Silexan Int. J Neuropsychopharmacol. 2014-Jun:17(6): 859-69.doi:10.1017/S1461145714000287.Epun2014 Jan 23. Kasper S., Gastpar M., Muller WE, Volz HP., Moller, HJ, Schlafke S., Dienel. A.

Increasing Use of Cannabis Among Older Americans: A Public Health Crisis or Viable Policy Alternative? Kaskie B, Ayyagari P, Milabvetz G, Shane D, Arora K. Gerontologist 2017 Jan 11. pii: gnw166.doi:10.1093/geront/gnw166.

The Endocannabinoid System and Anxiety. Lisboa SF, Gomes FV, Terazian AL, Aguiar DC, Moreira FA, Resstel LB, Guimaraes FS. Vitam Horm. 2017;193-279.doi: 10.1016/bs.vh.2016.09.006

Can Medical Cannabis Break the Painkiller Epidemic? Hsu, J, Sci Am.2016 Aug 16;315(3):10-12.doi:10.1038/scienfiticamerican0916-10.

TMCI Global provides online ACCME- and ANCC-certified medical education to healthcare professionals who want to learn more about the clinical application of medical cannabis. **https://themedicalcannabisinstitute.org**

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2017 CALTCM Annual Meeting

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Medication Strategies in Management of Pain in the PA/LTC Continuum

Deb Bakerjian PhD, APRN, FAAN, FAANP

CALTCM 2017

Speaker Disclosure Statement

Dr. Bakerjian has disclosed that she is:

- A founding member of geriatricpain.org
- A Clinical Consultant for Wolters-Kluwer and receives a consulting fee
- A researcher and grant recipient for HRSA and CDPH-CAHF

All conflicts of interest have been resolved in accordance with the ACCME's Standards for Commercial Support.

Learning Objectives

1. Discuss the types of pain encountered in nursing home residents

2. Describe current options in treating pain in nursing home residents with analgesics, adjuvant medications, and other medical interventions

3. Summarize the pitfalls and difficulties in prescribing opioids based on recent legal and regulatory changes, and DEA scrutiny.

POST-ACUTE AND LTC CONTEXT

Older Adult Population

- Fastest growing segment of world's population
  - By 2030, adults > 65 yrs will be 20% of the population
  - By 2050 increases to 36%
- Over age 85 yrs fastest growing in the U.S.
- Older adults are greatest users of healthcare
- Despite older adults being healthier, 21%-66% older adults experience "chronic" pain –
  - Persistent pain lasting > 3 months
  - Impacts ADLs, quality of life, energy levels & mental outlook

National Institutes of Health, 2014

The Current Problem

- In NHs, pain is often under-recognized & undertreated
- Growing differences in post-acute and long term care populations
- Growing numbers of younger residents, often with mental health conditions
- Lower RN staffing – responsible for comprehensive assessments

AND

- U.S. has an opioid overdose crisis

DEFINING & ASSESSING PAIN

What is Pain?

- "an unpleasant sensory & emotional experience associated with actual or potential tissue damage, or described in terms of such damage…"[1]
- Often caused by injury or illness
- How your body interprets "signals" from nerve pathways to your brain
- Affected by many external factors

[1]Kaye, Baluch & Scott 2010

Staff & Patient Misconceptions

- Inadequate knowledge & inappropriate attitudes
- People's fears and misconceptions
  - Pain is inevitable
  - Part of getting old
- People's desire not to "give in" or "admit" to pain

Associated Physiologic Changes

- Normal aging changes occur in several organ systems
- Musculoskeletal changes – wear and tear on joints; reduced muscle mass & decline in muscle strength despite physical activity[1]
- Nervous System – changes may start in the 50's; neurons not regenerated, certain types of cells decrease in number [2]
- Gastrointestinal track – changes in the lining of the tissue
- Liver – takes longer to clear drugs [2]
- Kidney function begins to decline after age 40 [2]

PAIN CAN BE COMMON BUT IT IS NOT "NORMAL"

[1] Hughes, Frontera, Wood, Evans et al. (2000)
[2] Kaye, Baluch & Scott (2010)

Pain Recognition Standards

- All staff are responsible for recognizing pain upon admission and throughout the stay
- Recognition efforts must go beyond asking the question "are you in pain"
  - Verbalizations that may be nonsensical
  - Non-verbal indicators
  - Aberrant behaviors
  - Functional decline
  - Loss of appetite
  - Difficulty sleeping

- Observations should be at rest & with movement

Knowledge of Pain

- Staff must know pain essentials
- Types of pain
- How to perform a comprehensive assessment
- How to document findings
- Understanding of both pharmacological & non-pharmacological interventions
- How to monitor & revise plans
- Effective communication

Assessment Standards

- Establish specific requirements for assessing pain
- Observing during care, activities & treatments can detect presence of pain, location, & limitations on residents
- MDS must be completed as "part" of the comprehensive assessment
  - Requires more detailed assessment

Comprehensive Pain Assessment

- History of pain & its treatment
- Characteristics of pain
  - Impact of pain on quality of life
  - Factors that precipitate pain
  - Strategies or factors that reduce pain
- Associated pain symptoms
- Physical examination
- Current medical condition & medications
- Resident goals for pain management

Physical Exam

- Physical exam can provide important information
- Specific location of pain
- Physical abnormality
- Resistance against movement
- Crying “that hurts” during assessment
- c/o pain with palpation or ROM

MDS 3.0

- MDS 3.0- Section J documents assessment elements
- Requires a resident interview or staff assessment
  - Presence of pain
  - Frequency of pain
  - Effect on function
  - Intensity
  - Management
  - Control

Challenges

- Residents who are cognitively impaired may not be able to communicate clearly
- Non-verbal indicators do not tell the nurse what is wrong
- Nurses cannot spend enough face time with residents to complete comprehensive assessment tools
- Communication between CNAs & Charge Nurses is inconsistent
- Most NHs do not have adequate systems in place to support consistent care processes

PAIN TYPES

Types of Pain

- Acute or chronic
- Nociceptive pain – caused by tissue damage
  - Somatic pain – originates in skin & deep tissues
  - Visceral pain – originates in internal organs
- Neuropathic pain – caused by nerve damage
- Psychogenic pain – physical origin but increased by fear, stress, anxiety or depression

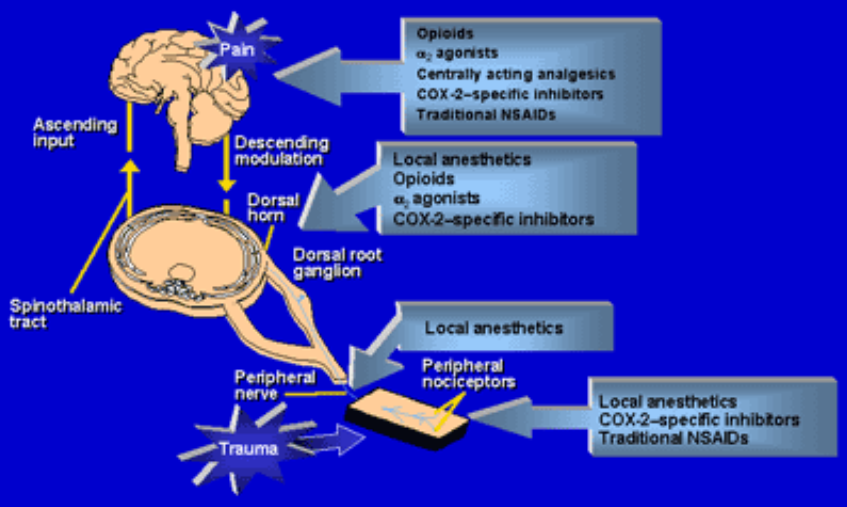
Nociceptive Pain

- Somatic – often described as *sharp in nature*, often increases with movement, well localized
  - Nociceptors pick up sensations due to temperature, vibration & swelling
  - Injury to skin, joints, muscles, bones
  - Arthritis, fractures, burns, muscle tears
- Visceral – often described as *aching or squeezing* or colicky; hard to define or localize
  - Compression on an organ from *inflammation* or *tumors*
  - Stretching of abdominal cavity
  - Angina, heart attacks, constipation, tumors, stomach ulcers

Other Pain Types

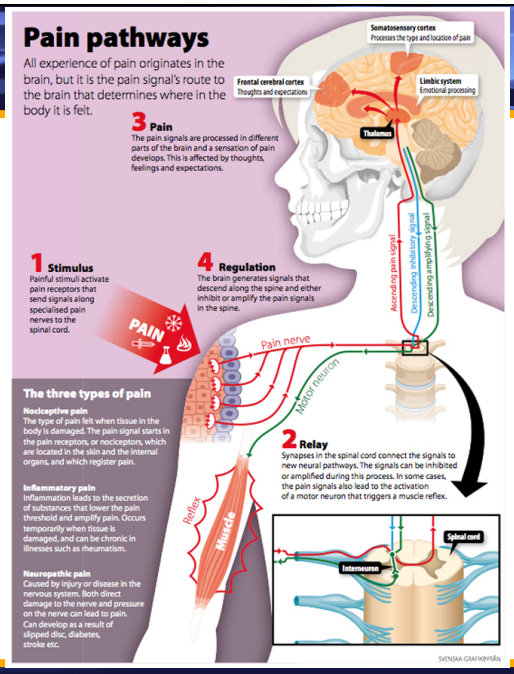
- Neuropathic – often described as burning or electric in nature
  - Due to damage to nerve tissue
  - Often made worse by stimuli not usually associated with pain such as light touch
  - May be associated with a neurologic deficit
  - Diabetic neuropathy, Shingles, carpal tunnel, sciatica
- Psychogenic – pain sensation does not match symptoms
  - Headaches and muscle, back & stomach pain that persist despite treatment of underlying condition
  - Aggravated by stress, anxiety, depression

Analgesia and the Pain Pathway



Adapted from Gottschalk A, Smith DS. *Am Fam Physician*. 2001;63:1979–1984, 1985–1986.

CALTCM 2017 Quality Through Best Practices

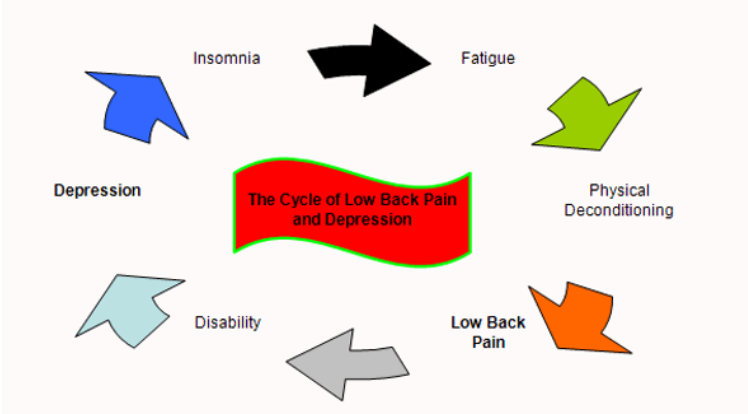


Examples of Chronic Pain Types

Table 1. Chronic Pain Disorders

Neuropathic Pain	Mixed Pain	Nociceptive Pain
• Peripheral neuropathies (diabetes, HIV)	• Migraine and chronic daily headache	• Mechanical low back pain
• Postherpetic neuralgia	• Fibromyalgia	• Rheumatoid arthritis
• Trigeminal neuralgia	• Phantom limb pain	• Osteoarthritis
• Central post-stroke pain	• Complex regional pain syndrome	• Chronic inflammatory conditions
• Spinal cord injury	• Multiple sclerosis	• Somatoform pain disorder
• Neuropathic low back pain	• Low back pain	• Postoperative pain
	• Myofascial pain syndrome	• Sickle cell crisis
	• Skeletal muscle pain	• Sports/exercise injury

Cycle of Pain and Depression



Pain Symptoms

- Physiological changes – heart rate, resp rate, BP, diaphoresis, flushing
- Loss of appetite
- Insomnia
- Decreased mobility
- Social isolation/depression
- Enjoyment of activities

TREATMENT OPTIONS

Management Overview

Non-Pharmacological	Pharmacological
• Repositioning • Heat and Cold • Breathing & Guided Imagery • Distraction • Massage • Music • Relaxation	• Non-opioid • Opioids – mild to moderate • Opioids – moderate to severe

Collaborative Management of Pain

- Based on assessment - facility, attending prescriber, & staff *collaborate to manage pain*
- Develop appropriate interventions to prevent or manage pain
- Interventions may be integrated into care plan or included as a specific pain management need or goal
- IDT & resident develop pertinent, realistic & measurable goals for treatment
- Pain management approaches must follow clinical standards of practice

Non-Pharmacological Interventions

- Lack substantive evidence that these work because they have been poorly studied
- There is anecdotal evidence for their use
  - Alterations in environment for comfort
  - Physical modalities – cold/heat, positioning, massage
  - Exercises to reduce stiffness, prevent contractures
  - Cognitive/behavioral interventions
  - CAM – herbal supplements if ordered
  - Distraction- guided imagery, relaxation
- Staff should attempt all non-pharm interventions to determine if they might work

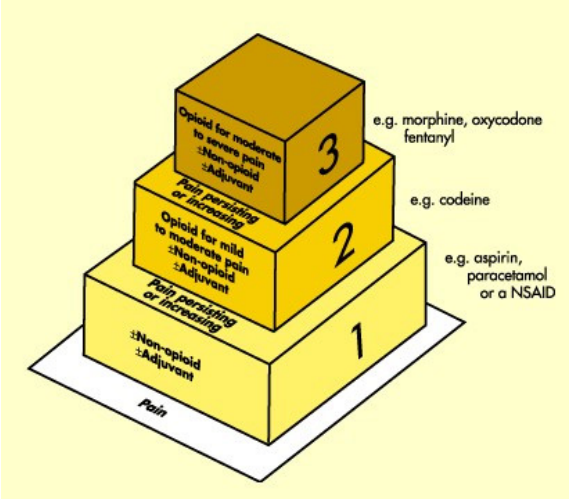
Evidence for Music

- Music & Memory is a newer national program https://musicandmemory.org/
  - Uses iPod to deliver individualized music
  - National certification program
- CAHF Music and Memory Project
  - Recruiting up to 300 NHs in CA to participate
  - NHs receive certification & equipment for 15 residents
  - Participate in study – UC Davis

Pharmacological Interventions

- IDT is responsible for developing individualized pain management regimen
- A systematic approach for meds & doses is important
- Addressing underlying cause of pain
- Administration timing – PRN vs routinely
- Combining short & long acting drugs
- All medications, including opioids or other potent analgesics, must be dosed according to standards
- Clinical record should reflect ongoing communication with prescriber

WHO 3-Step Ladder



WHO 3-Step Ladder

Step 3, Severe Pain
Morphine
Hydromorphone
Methadone
Levorphanol
Fentanyl
Oxycodone
± *Nonopioid analgesics*
± *Adjuvants*

Step 2, Moderate Pain
Acet or ASA +
Codeine
Hydrocodone
Oxycodone
Dihydrocodeine
Tramadol (not available with ASA or Acet)
± *Adjuvants*

Step 1, Mild Pain
Aspirin (ASA)
Acetaminophen (Acet)
Nonsteroidal anti-inflammatory drugs (NSAIDs)
± *Adjuvants*

"Adjuvants" refers either to medications that are coadministered to manage an adverse effect of an opioid, or to so-called adjuvant analgesics that are added to enhance analgesia.

Managing Mild to Moderate Pain

- Acetaminophen – Tylenol
  - Max dose of 3 gms/24 hrs
  - Can cause liver damage with persistent use at high doses
- Nonsteroidal anti-inflammatory drugs (NSAIDs)
  - Ibuprofen – Advil or Motrin
    - 200 - 400 mg every 4-6 hrs OTC
    - 600 – 800 mg prescription doses
  - Naproxen – Aleve or Naprosyn
    - 250 mg every 8-12 hours (max dose 500 mg/24)
  - Meloxicam 7.5-15mg/24 hrs – once daily dose
  - Can cause acute kidney injury or damage over time
  - May be upsetting to stomach or cause bleeding, take with food
- Topical – Ben-Gay, Icy Hot, Capzasin, Lidoderm patch

Moderate to Severe Pain-Non-Opioid

- Corticosteroids – reduce inflammation, swelling, itching
  - Given orally or by injection
  - Can be used for deep injection into joint & tissues
- Antidepressants – used to treat pain by altering levels of neurotransmitters
  - Given orally
  - May be in addition to or instead of pain medications
- Anticonvulsants – may reduce the effect of pain specifically on nerves
  - Given orally
  - Most effective for neuropathic pain

Moderate to Severe Pain-Opioids

- Narcotic pain medications
- Often used for acute pain (injury, after surgery)
- Short acting and long acting preparations
- Given orally, under the tongue, injection or intravenous
- Effective for many, but not all, types of severe pain
- Worries about addiction related to use of opioids

MEDICATION SAFETY

- Prescribers include physician, nurse practitioners, physician assistants, and in come cases, pharmacists
- NURSES are responsible for administering pain medications appropriately as ordered
  - 5 Rights
  - Consideration of routine versus PRN meds
- NURSES are responsible for
  - Evaluating the effectiveness of the pain med
  - Assessing for side effects/adverse effects
  - Communicating to the prescriber

Opioids

- History of underuse of opioids – pendulum swinging the opposite way
- Huge problem with diversion – hence the problem we have with the DEA
- Prescribers now must include a risk assessment prior to ordering –
- The biggest at risk population – those with history of alcohol or drug abuse

MANAGING OPIOID SIDE EFFECTS

- Constipation is the main problematic side-effect
  - Ensure a bowel regimen in place at the onset of opioid use
  - Increases in dietary fiber and water (not coffee, tea or other diuretic inducing drinks)
- Drowsiness, cognitive change, delirium – fall risk, notify prescriber
- Respiratory depression – notify prescriber
- Nausea – meds with food, avoid spicy foods
- Pruritis – cool compress, moisturizers

Challenge: Treatment

- Non-pharm interventions do not always work
- Many pain medications have extensive side-effects
  - NSAIDs – gastric bleeding, renal failure
  - Opioids – tolerance, pseudo-addiction, constipation
- IDT is essential – pharmacist, care team, prescriber – it is difficult to get them there at the same time
- We do not pay attention to ensure that patients with chronic or constant pain have both long and short acting meds
- NHs do a terrible job of monitoring
- Therefore, pain interventions are inconsistently revised
- It is a pain to get pain meds with the new DEA regulations

Pain Management-Cognitively Impaired Patients

- Management of pain in cognitively impaired residents is a special challenge
- Using an evidence based assessment helps
- Serial-Trial Intervention might help

  Available on geriatricpain.org

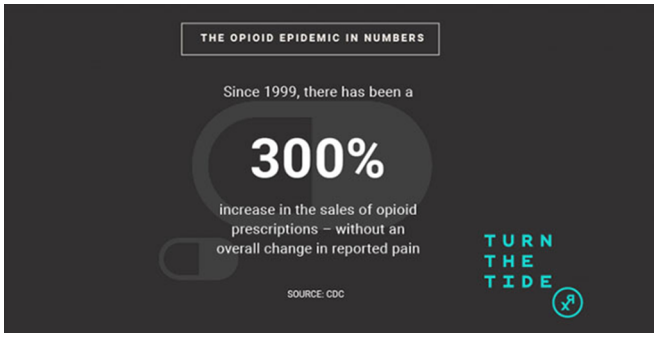
Other Medical Treatments - Specialists

- Deep injections – guided by fluoroscopy
- Minimally invasive procedures – uses a laparoscopic approach
- Surgical procedures
  - Knee and hip replacements
  - Discectomies
  - Laminectopies or fusions
- Chiropractic (vs physiotherapy)
  - Manipulation of spine
  - Few differences in outcomes found between methods
  - Adding chiropractic manipulation to standard care improved pain & disability in low back pain

Opioids: A Changing Paradigm

STATE OF ADDICTION

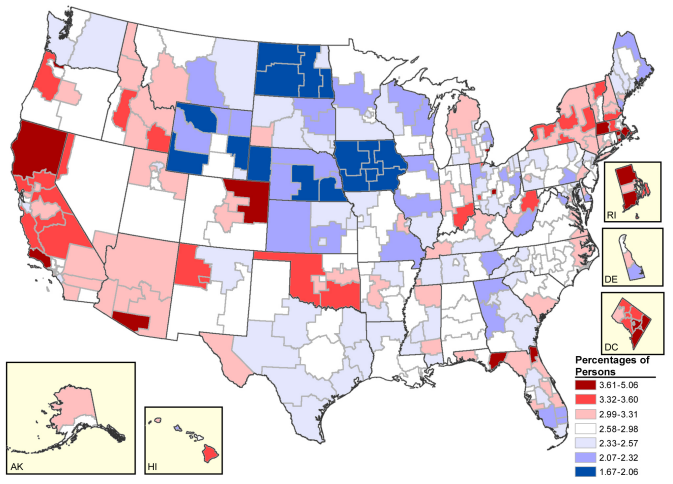
CURRENT CHALLENGES



Prescription Drug Misuse

- 15 mil people >12 yrs or older use prescription drugs non-medically in 2016
- 6.5 mil in past month
- Misuse of prescription drugs $53.4 billion annually - lost productivity, medical costs, criminal justice costs
- Diversion – selling opioids on the street
- Drug overdose rates increased 5-fold since 1980
  - Outnumbers deaths due to motor vehicle accidents
  - Prescription drug overdose deaths outpace heroin & cocaine
  - Only 1 in 10 Americans with substance abuse receive treatment
  - Increased in California by 31% since 1999

Drug Abuse in Adults



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2008, 2009, and 2010 (revised March 2012).

FACING ADDICTION IN AMERICA

The Surgeon General's Report on Alcohol, Drugs, and Health

U.S. Department of Health & Human Services

https://www.samhsa.gov/

Commonly Misused/Abused Drugs

- Opioids
- Benzodiazepines
- Ambien
- Adderall
- Rigalin and Concerta

Opioid Overdose

- When a patient misunderstands the directions for use, accidentally takes an extra dose, or deliberately misuses a prescription opioid or an illicit drug like heroin
- If a person takes opioid medications prescribed for someone else
- If a person mixes opioids with other medications, alcohol, or over-the-counter drugs

- CARA- Comprehensive Addiction & Recovery Act
  - Access to naloxone
  - Prescription drug monitoring programs
- CURES Act
  - Congressional Action – Dec 2016
  - $6.3 billion in funding
  - Increase treatment options for mental health including opioid epidemic

Opioid Treatment Programs

https://www.samhsa.gov/prescription-drug-misuse-abuse

What Prescribers Can Do

- Methadone- must be prescribed in special clinics
  - Comes in pill, liquid & wafer formats
  - Effective in higher doses, best for Heroin users
- Naltrexone- blocks opioid receptors , reverses toxic effects – given for OD signs/symptoms
- Buprenorphine- 1st med permitted to be prescribed in prescriber offices, increasing access to treatment
  - Special training required
  - NPs and PAs now also allowed to go through MAT training and get waivers
  - Special program for pharmacists for physician verification

https://www.samhsa.gov/medication-assisted-treatment

Approved Buprenorphine

The FDA has approved the following buprenorphine products:

- Bunavail (buprenorphine and naloxone) buccal film
- Suboxone (buprenorphine and naloxone) film
- Zubsolv (buprenorphine and naloxone) sublingual tablets
- Buprenorphine-containing transmucosal products for opioid dependency

Buprenorphine

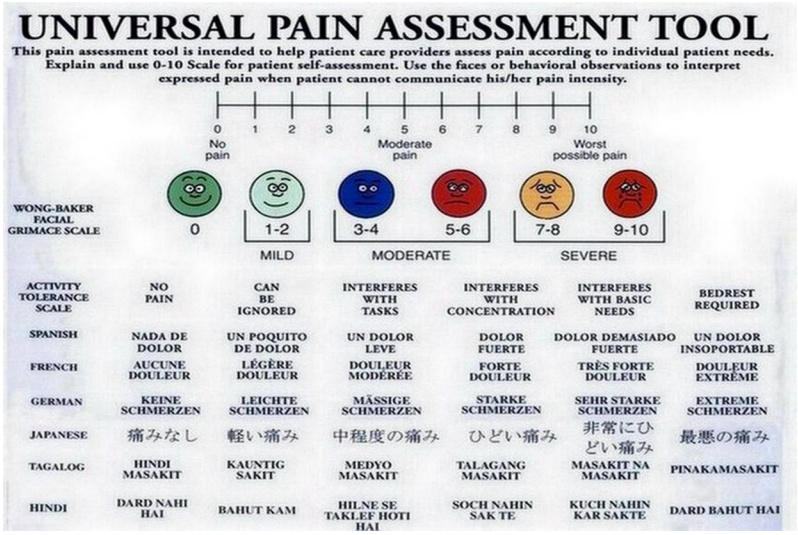
- How it works
  - Lower the potential for misuse
  - Diminish the effects of physical dependency to opioids, such as withdrawal symptoms & cravings
  - Increase safety in cases of overdose
- Side Effects
  - Nausea, vomiting, and constipation
  - Muscle aches and cramps
  - Cravings
  - Inability to sleep
  - Distress and irritability
  - Fever
- Naloxone added to decrease likelihood of diversion /misuse

Patient Limitations

- **New Federal Regulations Increase Limit Rule to 275 Patients**
- Physicians who have prescribed buprenorphine to 100 patients for at least one year can now apply to increase their patient limits to 275 under new federal regulations. For more information, send an email to infobuprenorphine@samhsa.hhs.gov(link sends e-mail) or call **866-BUP-CSAT (866-287-2728)**.
- Complete online request at SAMHSA website

Resources & Tools

Pain Scales & Verbal Descriptors



UNIVERSAL PAIN ASSESSMENT TOOL

This pain assessment tool is intended to help patient care providers assess pain according to individual patient needs. Explain and use 0-10 Scale for patient self-assessment. Use the faces or behavioral observations to interpret expressed pain when patient cannot communicate his/her pain intensity.

0 1 2 3 4 5 6 7 8 9 10

No pain — Moderate pain — Worst possible pain

WONG-BAKER FACIAL GRIMACE SCALE

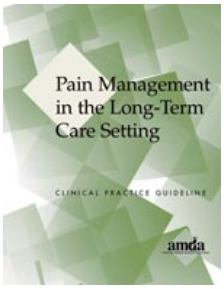
0 | 1-2 | 3-4 | 5-6 | 7-8 | 9-10

MILD — MODERATE — SEVERE

ACTIVITY TOLERANCE SCALE	NO PAIN	CAN BE IGNORED	INTERFERES WITH TASKS	INTERFERES WITH CONCENTRATION	INTERFERES WITH BASIC NEEDS	BEDREST REQUIRED
SPANISH	NADA DE DOLOR	UN POQUITO DE DOLOR	UN DOLOR LEVE	DOLOR FUERTE	DOLOR DEMASIADO FUERTE	UN DOLOR INSOPORTABLE
FRENCH	AUCUNE DOULEUR	LÉGÈRE DOULEUR	DOULEUR MODÉRÉE	FORTE DOULEUR	TRÈS FORTE DOULEUR	DOULEUR EXTRÊME
GERMAN	KEINE SCHMERZEN	LEICHTE SCHMERZEN	MÄSSIGE SCHMERZEN	STARKE SCHMERZEN	SEHR STARKE SCHMERZEN	EXTREME SCHMERZEN
JAPANESE	痛みなし	軽い痛み	中程度の痛み	ひどい痛み	非常にひどい痛み	最悪の痛み
TAGALOG	HINDI MASAKIT	KAUNTIG SAKIT	MEDYO MASAKIT	TALAGANG MASAKIT	MASAKIT NA MASAKIT	PINAKAMASAKIT
HINDI	DARD NAHI HAI	BAHUT KAM	HILNE SE TAKLEF HOTI HAI	SOCH NAHIN SAK TE	KUCH NAHIN KAR SAKTE	DARD BAHUT HAI

Clinical Practice Guidelines

AMDA CPGs
Revised 2012



American Geriatrics Society
Pharmacological Management of Persistent Pain in Older Persons
Panel on the Pharmacological Management of Persistent Pain in Older Persons

Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain

Pain Specialty Organizations

- National Pain Foundation
  http://www.nationalpainfoundation.org/
- American Pain Society
  www.ampainsoc.org/people
- American Society of Pain Management Nurses www.nationalpainfoundation.org
- National Hospice and Palliative Care Org
  www.nhpco.org
- Hospice and Palliative Nurses Association
  www.hpna.org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Helping nurses assess and manage pain in older adults
Free evidence-based tools and best practices for nurses who work in nursing homes.
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Geriatric Pain Overview
The purpose of this Web resource is to share best practice tools and resources with nurses responsible for pain care in older adults who reside in nursing homes.
Learn about the Center for Nursing Excellence in Long Term Care.
REGISTER NOW to access free information that you can adapt to fit your needs.
Updated 4.21.2010
Pain Resources
The first step to assure quality pain care is good and appropriate pain assessment.
Access tools developed by experts to help plan and implement an effective plan of care for older adults who reside in nursing homes.
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Geriatric Pain in the News
Sign-up - for e-mail updates.
For Technical Questions
Questions and comments - contact us to suggest additional resources.


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CALTCM
California Association of Long Term Care Medicine
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Quality Through Best Practices
California Association of Long Term Care Medicine
Promoting quality patient care through medical leadership and education
Diagnosis of Depression in Geriatrics and PA/LTC
Jay Luxenberg, MD, FACP, AGSF
Chief Medical Officer, On Lok
CALTCM 2017

Speaker Disclosure Statement

Dr. Luxenberg has disclosed that he has no relevant financial relationship(s).

Disclaimer: I am not a psychiatrist, coder or billing expert. I am a primary care doc. Consult an expert when in doubt.

Objectives

1. Demonstrate mastery of the PHQ-9© component of the MDS to assist in screening for depression
2. Recognize how to make an accurate diagnosis of depression and subsyndromal depression in the elderly
3. Review DSM-V diagnosis and ICD-10 diagnostic codes applicable to depression, including how to avoid common pitfalls.
4. Develop competence in diagnosing complex depression cases, including comorbid dementia, social isolation, grief reactions, substance abuse, etc.

Depression

- Up to 25% of nursing home residents
- Elderly are -12% of population but 25% of suicides - high rate of success
- Subsyndromal depressive symptoms are much more common than major depression

Factors Impacting Diagnosis of Dementia

- The “normative fallacy”—that is, the belief that symptoms of depression are “normal” or “expectable” given the patient’s age, social circumstances (including recent losses), and medical condition
- Attributing neurovegetative symptoms and signs (such as loss of energy, poor appetite, and disturbed sleep) to concomitant medical problems

Diagnosing Depression

- Interfering with diagnosis
  - Sensory deficits
  - Medical illnesses
  - Cognitive deficits
  - Cultural factors

Tough Differentials

- Somatoform disorders versus physical illness accompanied by depression
- Substance abuse causing depression versus depression causing substance abuse
- Progressive dementia causing reactive depression versus depression resulting in symptoms of dementia

Tough Differentials

- Anorexia in depression versus anorexia in malignancy, dementia or other medical illness
- Depression in late dementias versus withdrawal and silence as stage in progressive dementia

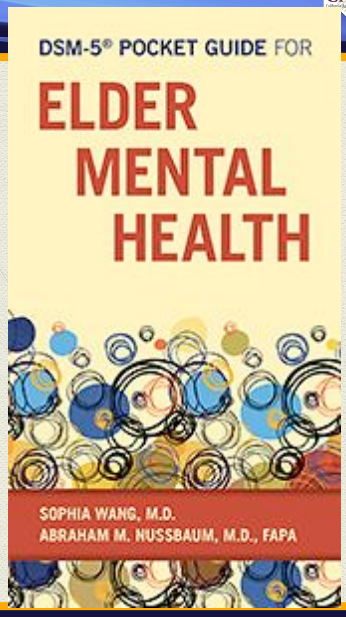
Grief/Bereavement

- Uncomplicated grief (bereavement) can include all the features of major depression except suicidality, psychosis, and severe loss of functionality
- Although time course of normal grief is variable, most patients should be at or moving toward baseline at one year.
- DSM-V now excludes the grief exception for the diagnosis of major depressive disorder - if criteria for MDD are present, you make that diagnosis irrespective of recent loss

DSM-5® Pocket Guide for Elder Mental Health

Sophia Wang, M.D., and Abraham M. Nussbaum, M.D., FAPA

2017
ISBN 978-1-61537-056-6



Depression Screening

- The US Preventive Services Task Force (USPSTF) recommends screening for depression in the general adult population.
- Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up. (B recommendation)

JAMA. 2016;315(4):380-387. doi:10.1001/jama.2015.18392

Fee for Service Medicare

- HCPCS/CPT Codes G0444 – Annual depression screening, 15 minutes
- ICD-10 Codes - https://www.cms.gov/Medicare/Coverage/CoverageGenInfo/ICD10.html
- Who Is Covered - All Medicare beneficiaries
- Must be furnished in a primary care setting that has staff-assisted depression care supports in place to assure accurate diagnosis, effective treatment, and follow-up
- Frequency - Annually
- Medicare Beneficiary Pays:
  - Copayment/coinsurance waived
  - Deductible waived

Depression Screening

- Commonly used depression screening instruments include the Patient Health Questionnaire (PHQ) in various forms and the Hospital Anxiety and Depression Scales in adults, the Geriatric Depression Scale in older adults
- All positive screening results should lead to additional assessment that considers severity of depression and comorbid psychological problems (eg, anxiety, panic attacks, or substance abuse), alternate diagnoses, and medical conditions.

JAMA. 2016;315(4):380-387. doi:10.1001/jama.2015.18392

The Patient Health

- The PHQ-9© is a multipurpose instrument for screening, diagnosing, monitoring and measuring the severity of depression
- It is available in many languages for free at www.phqscreeners.com
- For nursing home residents, PHQ is part of the Version 3.0 Resident Assessment Instrument, section D.
- The PHQ is self reported. If resident is rarely/never understood, RAI uses Staff Assessment of Resident Mood (PHQ-9-OV©)

Resident Mood Interview - look-back period is 14 days

D0200. Resident Mood Interview (PHQ-9©)

Say to resident: *"Over the last 2 weeks, have you been bothered by any of the following problems?"*

If symptom is present, enter 1 (yes) in column 1, Symptom Presence.
If yes in column 1, then ask the resident: "*About **how often** have you been bothered by this?*"
Read and show the resident a card with the symptom frequency choices. Indicate response in column 2, Symptom Frequency.

1. **Symptom Presence**
   0. **No** (enter 0 in column 2)
   1. **Yes** (enter 0-3 in column 2)
   9. **No response** (leave column 2 blank)

2. **Symptom Frequency**
   0. **Never or 1 day**
   1. **2-6 days** (several days)
   2. **7-11 days** (half or more of the days)
   3. **12-14 days** (nearly every day)

	1. Symptom Presence	2. Symptom Frequency
	↓ Enter Scores in Boxes ↓	
A. *Little interest or pleasure in doing things*	☐	☐
B. *Feeling down, depressed, or hopeless*	☐	☐
C. *Trouble falling or staying asleep, or sleeping too much*	☐	☐
D. *Feeling tired or having little energy*	☐	☐
E. *Poor appetite or overeating*	☐	☐
F. *Feeling bad about yourself - or that you are a failure or have let yourself or your family down*	☐	☐
G. *Trouble concentrating on things, such as reading the newspaper or watching television*	☐	☐
H. *Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual*	☐	☐
I. *Thoughts that you would be better off dead, or of hurting yourself in some way*	☐	☐

Staff Assessment for Mood (PHQ-9-OV©)

D0500. Staff Assessment of Resident Mood (PHQ-9-OV©)
Do not conduct if Resident Mood Interview (D0200-D0300) was completed

Over the last 2 weeks, did the resident have any of the following problems or behaviors?

If symptom is present, enter 1 (yes) in column 1, Symptom Presence.
Then move to column 2, Symptom Frequency, and indicate symptom frequency.

1. **Symptom Presence**
   0. **No** (enter 0 in column 2)
   1. **Yes** (enter 0-3 in column 2)

2. **Symptom Frequency**
   0. **Never or 1 day**
   1. **2-6 days** (several days)
   2. **7-11 days** (half or more of the days)
   3. **12-14 days** (nearly every day)

	1. Symptom Presence	2. Symptom Frequency
	↓ Enter Scores in Boxes ↓	
A. Little interest or pleasure in doing things	☐	☐
B. Feeling or appearing down, depressed, or hopeless	☐	☐
C. Trouble falling or staying asleep, or sleeping too much	☐	☐
D. Feeling tired or having little energy	☐	☐
E. Poor appetite or overeating	☐	☐
F. Indicating that s/he feels bad about self, is a failure, or has let self or family down	☐	☐
G. Trouble concentrating on things, such as reading the newspaper or watching television	☐	☐
H. Moving or speaking so slowly that other people have noticed. Or the opposite - being so fidgety or restless that s/he has been moving around a lot more than usual	☐	☐
I. States that life isn't worth living, wishes for death, or attempts to harm self	☐	☐
J. Being short-tempered, easily annoyed	☐	☐

Resident Mood Interview

- Add the numeric scores across all frequency items in the Resident Mood Interview column 2
- The maximum score is 27 (3x9).
- If symptom frequency is blank for 3 or more items, interview deemed “not complete” and score is 99 - staff assessment for mood should be completed (PHQ-9-OV©).
- PHQ-9-OV© maximum score is 30 (3x10)

PHQ-9© Interpretation

- Major Depressive Syndrome is suggested if — of the 9 items — 5 or more items are identified at a frequency of half or more of the days (7 -11 days) during the look-back period and at least one of these, (1) little interest or pleasure in doing things, or (2) feeling down, depressed, or hopeless is identified at a frequency of half or more of the days (7 -11 days) during the look-back period.
- Minor Depressive Syndrome is suggested if, of the 9 items, (1) feeling down, depressed or hopeless, (2) trouble falling or staying asleep , or sleeping too much , or (3) feeling tired or having little energy are identified at a frequency of half or more of the days (7 -11 days) during the look - back period and at least one of these, (1) little interest or pleasure in doing things, or (2) feeling down, depressed, or hopeless is identified at a frequency of half or more of the days (7 -11 days)

PHQ-9© Total Severity Score

- PHQ-9© Total Severity Score can be used to track changes in severity over time.
- Total Severity Score can be interpreted as follows:
  - 1-4: minimal depression
  - 5-9: mild depression
  - 10-14: moderate depression
  - 15-19: moderately severe depression
  - 20-27: severe depression (20-30 for PHQ-9-OV©)

CMS's RAI Version 3.0 Manual

DSM-5 Criteria for Major Depressive Disorder

- Sad mood OR loss of interest or pleasure (anhedonia)
  - Symptoms are present nearly every day, most of the day, for at least 2 weeks
  - Not due to normal bereavement (present in DSM-IV-TR but removed in DSM-5)
- PLUS four of the following symptoms:
  - Sleeping too much or too little
  - Psychomotor retardation or agitation
  - Poor appetite and weight loss, or increased appetite and weight gain
  - Loss of energy
  - Feelings of worthlessness or excessive guilt
  - Difficulty concentrating, thinking, or making decisions
  - Recurrent thoughts of death or suicide

Major Depressive Disorder

- Episodic
  - Symptoms tend to dissipate over time
- Recurrent
  - Once depression occurs, future episodes likely
  - Average number of episodes is 4
- Subclinical depression
  - Sadness plus 3 other symptoms for 10 days
  - Significant impairments in functioning even though full diagnostic criteria are not met

DSM-5 Changes from DSM-4 TR

- Persistent Depressive Disorder (replaces Dysthymic Disorder)
  - Depressed mood for at least 2 years
  - PLUS 2 other symptoms:
    - Poor appetite or overeating
    - Sleeping too much or too little
    - Poor self-esteem
    - Trouble concentrating or making decisions
    - Feelings of hopelessness
- Bereavement no longer excluded from depression diagnosis

ICD-10 vs DSM-5

- ICD-10 and DSM-5 are similar in their criteria for depression.
- ICD-10 adds reduced energy into the cardinal symptoms of depressed mood and loss of interest and enjoyment.
- ICD-10 does not include some of the atypical symptoms of DSM-5 depression (increased appetite and hypersomnia) and instead supports diminished appetite and disturbed sleep.
- ICD-10 adds bleak and pessimistic views of the future to their diagnostic profile.
- If you get too hung on these differences, you may have F60.5 - obsessive-compulsive personality disorder

ICD10

- F32 - Major depressive disorder, single episode
  - F32.0 - Major depressive disorder, single episode, mild
  - F32.1 - Major depressive disorder, single episode, moderate
  - F32.2 - Major depressive disorder, single episode, severe without psychotic features
  - F32.3 - Major depressive disorder, single episode, severe with psychotic features
  - F32.4 - Major depressive disorder, single episode, in partial remission
  - F32.5 - Major depressive disorder, single episode, in full remission
  - F32.8 - Other depressive episodes
  - F32.9 - Major depressive disorder, single episode, unspecified

ICD10

- F33 codes are similar to F32, except that they refer to recurrent episodes of major depression: F33.0 - Major depressive disorder, recurrent, mild. F33.1 - Major depressive disorder, recurrent, moderate. F33.2 - Major depressive disorder, recurrent severe without psychotic features, etc.

ICD10

- F06.31 - Mood disorder due to known physiological condition with depressive features
- F06.32 - Mood disorder due to known physiological condition with major depressive-like episode
- DSM-5 Persistent Depressive Disorder = F34.1 Dysthymic disorder

ICD-10 Risk Adjustment Tip

- Caution: Major Depression: 296.20 (HCC 58) maps to F32.9 - Major depressive disorder, single episode, unspecified (No HCC)
- However 296.21-296.26 maps to F32.0-F32.5 (HCC 58)
- You must specify whether the depression is mild, moderate or severe
- F33.9 Major depressive disorder, recurrent, unspecified does retain HCC 58 value, as does F34.9 persistent mood disorder, unspecified

Depression in Dementia?

Higher rate of depression than the general population

- The occurrence of a first major depressive episode in an older adult is a risk factor for developing dementia.
- The incidence of depression ≈ 30% in vascular dementia and in Alzheimer's disease, and over 40% in the dementia associated with Parkinson's and Huntington's diseases.
- GDS
  - Useful for mild to moderate dementia
  - Patient answers 15 questions with yes or no
- Cornell Scale for Depression in Dementia
  - Useful for moderate to severe dementia
  - No self-report so rater must be well-trained

Enache D, Winblad B, Aarsland D. Depression in dementia: epidemiology, mechanisms, and treatment. Curr Opin Psychiatry 2011;24:461-72.

Diagnosis of Geriatric Depression in Dementia

- Confusion can often arise as to mood symptoms in dementia
  - Communication issues
    - Patients with moderate to severe dementias do not verbally communicate their mood
  - Symptoms of other disorders can overlap with depression
    - Alzheimer's patients have little appetite, lose concentration, become isolative
    - Parkinson's patients lose affect, have slowed speech and movements
    - Frontal lobe injuries present with apathy, often misinterpreted as depression, or frequent crying not related to mood

Diagnosis of Geriatric Depression in Dementia

- Most sensitive screening tools:
  - The Cornell Scale for Depression in Dementia (CSDD) had a sensitivity of 0.84 (95% CI = 0.73–0.91) and a specificity of 0.80 (95% CI = 0.65–0.90)
  - The Hamilton Depression Rating Scale (HDRS) had a sensitivity of 0.86 (95% CI = 0.63–0.96) and a specificity of 0.84 (95% CI = 0.76–0.90
  - The 30-item Geriatric Depression Scale (GDS) (GDS-30) had a sensitivity of only 0.62 (95% CI = 0.45–0.76) and a specificity 0.81 (95% CI = 0.75–0.85)
  - Use Mood and behavioral symptoms rather than vegetative features
    - Vegetative features often are multifactorial, i.e. poor sleep may have four or five causes

Goodarzi, Z. S., Mele, B. S., Roberts, D. J., & Holroyd-Leduc, J. (2017). Depression Case Finding in Individuals with Dementia: A Systematic Review and Meta-Analysis. *Journal of the American Geriatrics Society*, early review. http://doi.org/10.1111/jgs.14713

Diagnosis of Geriatric Depression in Dementia

- Apathy is a common symptom in dementia
- Often mistaken for depression-
- How to tell them apart?
  - In apathy, no emotional changes or lasting emotional feelings.

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Other Challenges

- Comorbidity with posttraumatic stress disorder (PTSD)
- Comorbidity with substance use disorders

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2017 CALTCM Annual Meeting

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April 28 & 29, 2017

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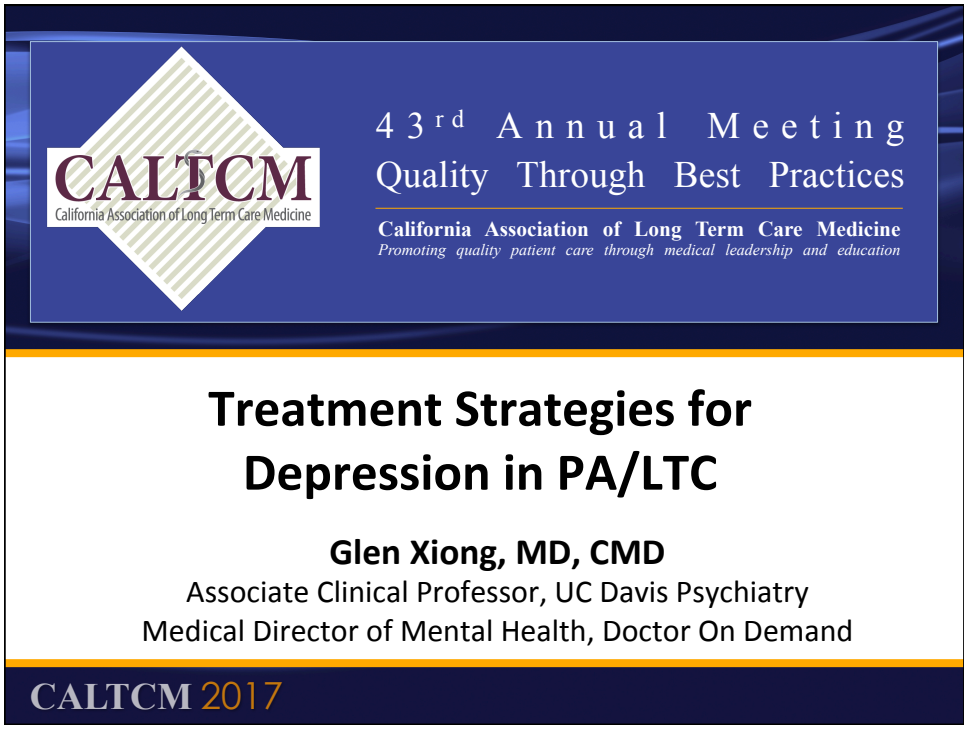
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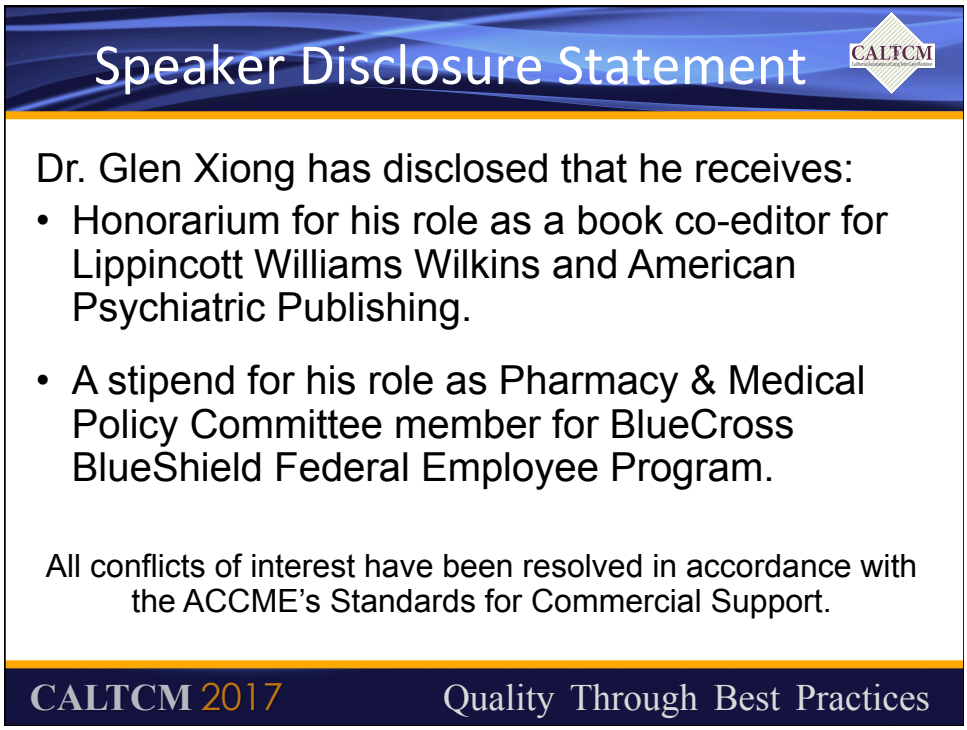
California Association of Long Term Care Medicine
Promoting quality patient care through medical leadership and education
Treatment Strategies for Depression in PA/LTC
Glen Xiong, MD, CMD
Associate Clinical Professor, UC Davis Psychiatry
Medical Director of Mental Health, Doctor On Demand
CALTCM 2017


Speaker Disclosure Statement
CALTCM
Dr. Glen Xiong has disclosed that he receives:
• Honorarium for his role as a book co-editor for Lippincott Williams Wilkins and American Psychiatric Publishing.
• A stipend for his role as Pharmacy & Medical Policy Committee member for BlueCross BlueShield Federal Employee Program.
All conflicts of interest have been resolved in accordance with the ACCME's Standards for Commercial Support.
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Objectives

- Contrast various types of medication used for depression in PA/LTC and their advantages and disadvantages
- Develop expertise in determining what kinds of case of depression warrant augmentation of antidepressant treatment is indicated, versus consideration of gradual dose reduction
- Recognize the difference between partial and full remission of major depressive disorder.

Basic Principles: AVOID

Avoid prescribing medications when possible	• Use behavioral and supportive measure when possible, especially for adjustment disorders, medication induced conditions, complex psychosocial stressors
Verify medications actually taken	• Adherence, adherence, adherence to medication is a HUGE problem
Optimize current medications and medication dosages	• Avoid treating the side-effects of one medication with another agent • Adjust timing or the dosing of current medications before adding new medications • Ensure medications are given a good trial - "start low, go slow, and go all the way" • Take advantage of desired side-effects such as sedation and weight gain
Identify the most effective mode of medication delivery	• Considered appropriate route of drug administration • When indicated, consider checking serum levels of medications for clinical efficacy and medication adherence
Determine the correct diagnosis and target symptoms	• Determine the underlying etiology of symptoms before starting medications • Many symptoms and behaviors can be reversible without required medication

On-Call Geriatric Psychiatry (2016)

Antidepressants

Comparative neurotransmitter effects

	NE	5HT	DA	5HT2 A	M1	H1
Amitriptyline	++	++	-	+	+++	++
Citalopram	-	+++	-	-	-	-
Sertraline	-	+++	+	-	-	-
Paroxetine	+	+++	-	-	+	-
Bupropion	-	-	+++	-	-	-
Mirtazapine	+*	+	-	+++	-	+++
Venlafaxine (SNRI)	++*	+++	+*	-	-	-

*Dose dependent

Tummala, Current Psychiatry 2002

First Line: *SSRI's*

CLASS	INITIAL DOSE (MG/DAY)[a]	THERAPEUTIC DOSE (MG/DAY)	PRACTICAL POINTERS FOR THE PCP[b]
Selective Serotonin Reuptake Inhibitors (SSRIs)			
Sertraline (Zoloft)	50	50–200	Serotonin and dopamine reuptake inhibition Possible early and temporary diarrhea and dyspepsia Relatively low risk for drug interactions
Paroxetine Paroxetine CR (Paxil, Paxil CR)	20 12.5–20	20–60 25–75	High anticholinergic and antihistamine side-effect profile Risk for sedation, weight gain, and dry mouth Short half-life with more risk for discontinuation syndrome High chance for drug interactions Unsafe during pregnancy—class D
Fluoxetine (Prozac)	20	20–60	Long half-life and ideal for intermittently compliant patients Relatively inexpensive High chance for drug interactions
Fluvoxamine (Luvox)	50	50–300	Rarely used due to high side-effect profile
Citalopram (Celexa)	20	20–60	Structurally similar to escitalopram Low risk for drug interactions
Escitalopram (Lexapro)	10	10–20	Structurally similar to citalopram Low risk for drug interactions

Lippincott's Primary Care Psychiatry (2009)

First Line: *SNRI's*

CLASS	INITIAL DOSE (MG/DAY)[a]	THERAPEUTIC DOSE (MG/DAY)	PRACTICAL POINTERS FOR THE PCP[b]
Desvenlafaxine (Pristiq)	50	50–100	Structurally similar to venlafaxine (do not use concurrently) Dual action on serotonin and norepinephrine receptors *Not* consistently "activating" but usually does not cause sedation Not to be used in those with difficult-to-treat hypertension Short half-life with more risk for discontinuation syndrome Reduce dose with renal insufficiency
Venlafaxine XR (Effexor XR)	37.5	75–300	Structurally similar to desvenlafaxine (do not use concurrently) Dual action on serotonin and norepinephrine receptors *Not* consistently "activating" but usually does not cause sedation Sometimes used as an adjunct for chronic pain Not to be used in those with difficult-to-treat hypertension May increase blood pressure and heart rate, especially at higher dosing range (>150 mg/day) Non-XR formulation is rarely used due to side-effect profile and twice-per-day dosing Short half-life with more risk for discontinuation syndrome Reduce dose with renal insufficiency
Duloxetine (Cymbalta)	30	30–60	Dual action on serotonin and norepinephrine receptors *Not* consistently "activating" but usually does not cause sedation FDA approved for fibromyalgia and diabetic peripheral neuropathic pain Sometimes used for chronic neuropathic pain Short half-life with more risk for discontinuation syndrome Increased risk for drug interactions

Lippincott's Primary Care Psychiatry (2009)

First Line Antidepressants: *Other*

CLASS	INITIAL DOSE (MG/DAY)[a]	THERAPEUTIC DOSE (MG/DAY)	PRACTICAL POINTERS FOR THE PCP[b]
Bupropion	75–150	300–450	
Bupropion SR (Wellbutrin SR)	100	300–400	Given twice per day Likely dual action on dopamine and norepinephrine receptors Contraindicated with seizure and eating disorders
Bupropion XL (Wellbutrin XL)	150	300–450	Increased risk for seizures in those with alcohol withdrawal Not used for anxiety disorders May worsen anxiety associated with depression No serotonin activity and no related sexual side effects XL formulation is supposed to have slower release and lower side-effect profile (permits higher dosing and lower seizure risk) Less frequently used due to side-effect profile
Mirtazapine (Remeron)	15	15–45	Increases central serotonin and norepinephrine activity (possibly through presynaptic α_2-adrenergic receptor inhibition) Decreased frequency of sexual side effects Increased sedation and sleepiness at mainly *lower* doses Although not indicated for anxiety disorders, it may be helpful Remeron Sol tab is orally dissolving for patients who cannot swallow

FDA, Food and Drug Administration; PCP, primary care physician.
[a] Initial dose should be decreased by half when treating an anxiety disorder or an elderly person.
[b] Drug interactions refer to commonly used medications that are principally metabolized by the P450 2D6 pathway.

Lippincott's Primary Care Psychiatry (2009)

What is the right dose?

Medication (starting/target/ max dose/day)	Dose adjustments	Side effects & other considerations
Citalopram (10/20/20 mg) [Escitalopram (5/10/20 mg)]	-Renal impairment: no adjustment necessary -Hepatic impairment: citalopram max dose 20 mg/day	-SIADH/hyponatremia, risk of bleeding, risk of falls, anorexia -Akathisia, headache, agitation, GI complaints, diarrhea, constipation, sexual side effects -QTc prolongation warning by the US FDA and Health Canada: risk at dose >40 mg/day, max 20 mg/day in patients over 60 -Escitalopram is an enantiomer of citalopram and is twice as potent as citalopram
Sertraline (25/100/200 mg)	-Renal impairment: no adjustment necessary -Hepatic impairment: lower or less frequent dosing	-SIADH/hyponatremia, risk of bleeding, risk of falls, anorexia -Akathisia, headache, agitation, GI complaints, diarrhea, constipation, sexual side effects

On-Call Geriatric Psychiatry (2016)

What is the right dose?

Medication (starting/ target/max dose/day)	Dose adjustments	Side effects & other considerations
Venlafaxine (37.5/150/300 mg XR)	-Mild to moderate renal impairment: 25%-50% dose reduction -Hemodialysis: 50% dose reduction -Hepatic impairment: 50% dose reduction	-Dose-related increase in BP, nausea, constipation, sexual side effects -Useful for pain -May need to start at 12.5-25 mg IR for frail elderly -SIADH/hyponatremia, risk of bleeding, risk of falls
Duloxetine (30/60/120 mg)	-Renal impairment: avoid use -Hepatic impairment: avoid use	-Dry mouth, nausea, constipation, sexual side effects diarrhea -Useful for neuropathic pain, fibromyalgia SIADH/hyponatremia, risk of bleeding, risk of falls

On-Call Geriatric Psychiatry (2016)

What is the right dose?

Medication (starting dose/day)[1]	Dose adjustments	Side effects & other considerations
Mirtazapine (7.5-15/15/45 mg) **[ODT]**	-Renal impairment: clearance reduced, increase dose slowly -Hepatic impairment: clearance reduced, increase dose slowly (15/45)	-Sedation, weight gain, constipation, mild anticholinergic effects -Decreased WBC -More sedating when used at lowest doses (<15 mg)
Bupropion (37.5-50/150/450 mg)	-Renal impairment: consider reducing frequency and/or dose -Hepatic impairment: consider reducing frequency and/or dose	-Dry mouth, agitation, constipation -Can lower seizure threshold -No data to support use in anxiety disorders

On-Call Geriatric Psychiatry (2016)

Antidepressant Selection

Medical comorbidities:

- Neuropathic pain: duloxetine (FDA for diabetic neuropathic pain, MSK pain), venlafaxine,
- Insomnia/Weight loss: mirtazepine
- Fibromyaliga/CFS: paroxetine? duloxetine
- Tobacco cessation: bupropion

Commonly Prescribed Antidepressants and Evidence of Efficacy

Multiple FDA-approved indications across mood and anxiety disorders

	Zoloft®[1] (sertraline)	Lexapro®[2] (escitalopram)	Celexa®[3] (citalopram)	Paxil®[4] (paroxetine)	Paxil CR™[5] (paroxetine)	Prozac®[6] (fluoxetine)	Effexor-XR®[7] (venlafaxine)	Cymbalta®[8] (duloxetine)	Wellbutrin SR®[9]/XL™[10] (bupropion)
Major depressive disorder (MDD)	✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓✓	✓	✓✓
Premenstrual dysphoric disorder (PMDD)	✓				✓	(Sarafem™)[11] ✓			
Social anxiety disorder	✓✓			✓	✓		✓		
Post-traumatic stress disorder (PTSD)	✓✓			✓					
Generalized anxiety disorder (GAD)		✓		✓✓			✓✓	✓	
Panic disorder	✓✓			✓✓	✓	✓	✓		
Obsessive-compulsive disorder (OCD)	✓✓			✓✓		✓			
Pediatric MDD						✓			
Pediatric OCD	✓								

✓ Denotes approval for indication (2 positive, placebo-controlled trials reviewed and approved by FDA).
✓✓ Denotes long-term approval.

Pharmacotherapy

Drug-drug interactions

- Cytochrome P450 inducers: Carbamazepine (CBZ) induction of 3A4 begins in 3-5 days and ends in 3-4 weeks. CBZ reduced amitriptyline by 40% and peak bupropion level by 87%

- Other inducers: modafinil, tobacco smoking, marijuana smoking, alcohol use, St. John's wort, omeprazole, isoniazid, rifampin

- Net metabolic effect is clinically difficult to predict. Check micromedex or other resources with numerous medications. Check drug levels when poor response.

Drug-Drug Interactions

SSRIs inhibitory effect on CP450

	1A2	2D6	2C9/10	2C19	3A3/4
Citalopram	-	++	-	-	-
Fluoxetine	-	+++	+++	++	+
Fluvoxamine	+++	-	+++	+++	++
Paroxetine	-	+++	-	-	-
Sertraline	-	+	-	-	-

-No or minimal effect <20%
+Mild effect 20-50%
++Moderate effect 50-150%
+++Substantial effect >150%
Preskorn J Psych Prac 2003

Table 2.4 Side-Effects Profile of Antidepressant Classes

	SEXUAL DYSFUNCTION/DECREASED LIBIDO	WEIGHT GAIN	SEDATION	CARDIAC
SSRIs	+++	+[a]	+/−[a]	0
Venlafaxine	+++	+/−	+/−	+ (↑ BP)
Mirtazapine	+	+++	++	+/−
Bupropion	0	0	0	+/− (↑ BP)
TCAs	++	++	+++	+++ (ECG, BP)

BP, blood pressure; ECG, electrocardiogram abnormalities; SSRIs, selective serotonin reuptake inhibitors; TCA, tricyclic antidepressants.
[a] Paroxetine and fluvoxamine are more likely to cause sedation and weight gain.

Lippincott's Primary Care Psychiatry (2009)

SSRI/SNRI Side-Effects

- Extrapyramidal side effects
- Apathy
- Anorexia

- SIADH

- Upper GI bleeding
- Falls

SSRI & Falls?

The American Journal of Geriatric Psychiatry

Volume 23, Issue 10, October 2015, Pages 1016–1028

Regular Research Article

Cause or Effect? Selective Serotonin Reuptake Inhibitors and Falls in Older Adults: A Systematic Review

Marie Anne Gebara, M.D.[a], Kim L. Lipsey, M.L.S.[b], Jordan F. Karp, M.D.[a], Maureen C. Nash, M.D.[c], Andrea Iaboni, M.D., D.Phil.[d, e], Eric J. Lenze, M.D.[f]

Show more

"The majority of studies were observational and suggest an association between SSRIs and falls. **The direction of the relationship--causation or effect--cannot be discerned from this type of study.** Standardized techniques for determining likely causation were then used to see if there was support for the hypothesis that SSRIs lead to falls**. This analysis did not suggest causation was likely.**

What about TCAs?

TCA side effects are potentially more hazardous in older people. They include:

- Anticholinergic-induced aggravation of glaucoma, constipation, urinary retention, and confusion
- Antiadrenergic-induced postural hypotension
- Antihistaminic sedation
- Risk of falls

Antidepressants

Antidepressant Efficacy

- Antidepressants are as effective in the elderly as in younger patients, with clinical trail response rates of 50% to 60%.
- A systematic review of 26 randomized trials comparing antidepressant classes in patients aged 55 and older found little difference in efficacy between medications (Mottram et al, 2006).
- Side effect profiles should be major determinant in medication selection.

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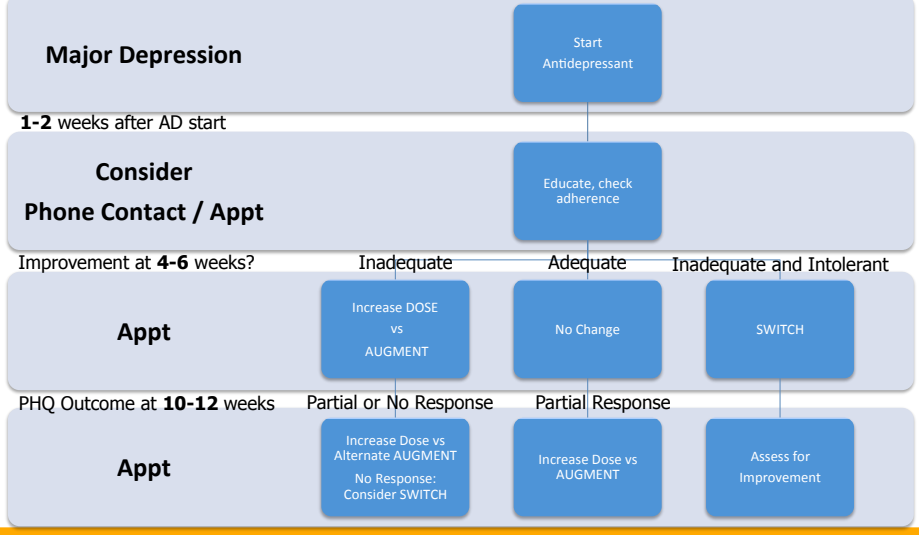

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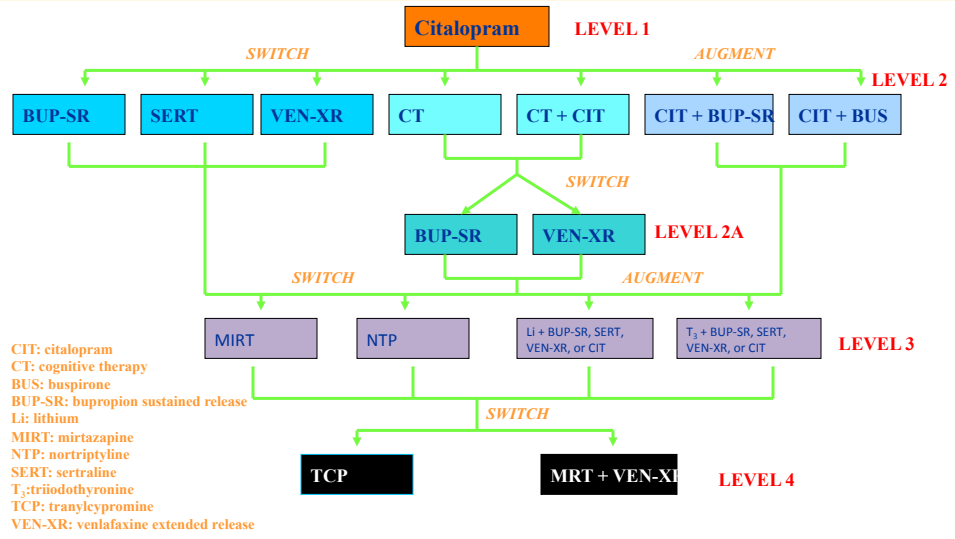
STAR*D Comparative Effective Study



Adapted from Warden D, et al. *Curr Psychiatry Rep.* 2007;9:449-459.

Augment vs Switch

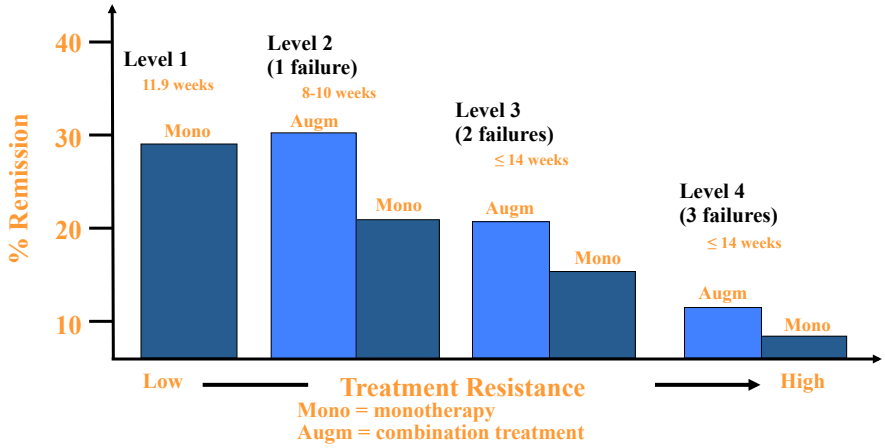
AUGMENT

- Partial Response on target dose
- Minimal SE's
- Patient ok with 2 meds

SWITCH

- No Response on target dose
- Intolerable SE's
- Patient hesitant about two meds

STAR*D Clinical Study Results Remission Rates (HAM-D-17 < 8)



McGrath PJ, et al. *Am J Psych.* 2006;163:1531-1541.
Rush AJ, et al. *Am J Psych.* 2006;163:1905-1917.
Nierenberg AA, et al. *Am J Psych*. 2006;163:1519-1530.
Trivedi MH, et al. *J Clin Psychiatry.* 2006;67:1458-1465.
Trivedi MH, et al. *N Engl J Med.* 2006;354:1243-1252.

Augmentation Strategy

1st Line	**Level 1 Evidence** • Lithium • Aripiprazole • Olanzapine • Quetiapine XR*	Level 2 Evidence • Risperidone
2nd Line	**Level 2 Evidence** ▪ **Bupropion** ▪ **Mirtazapine/mianserin** ▪ **Quetiapine IR** ▪ **Triiodothyronine**	Level 3 Evidence • Other antidepressant
3rd Line	**Level 2 Evidence** ▪ **Buspirone** ▪ **Modafinil**	Level 3 Evidence • Stimulants

Lam R, et al. *J Affect Disord.* 2009;117:S26-S43.
*Bauer M, et al. *J Clin Psychiatry.* 2009;70:540-549.
Nelson JC, Papakostas G. *Am J Psychiatry.* 2009;166:980-991.

Atypical Antipsychotic Augmentation in Depression – Placebo-Controlled Trials

Study	Atypical Antipsychotic	Antidepressant	Duration (weeks)
Shelton et al 2001	Olanzapine	Fluoxetine	8
Shelton et al 2005	Olanzapine	Fluoxetine	8
Corya et al 2006	Olanzapine	Fluoxetine	12
Thase et al 2006	Olanzapine	Fluoxetine	8
Thase et al 2006	Olanzapine	Fluoxetine	8
Mahmoud et al 2007	Risperidone	Various	6
Reeves et al 2008	Risperidone	Various	8
Keitner et al 2009	Risperidone	Various	4
Khullar et al 2006	Quetiapine	SSRI/SNRI	8
Mattingly et al 2006	Quetiapine	SSRI/SNRI	8
McIntyre et al 2006	Quetiapine	SSRI/SNRI	8
Earley et al 2007	Quetiapine	SSRI/SNRI	6
El-Khalili et al 2008	Quetiapine	SSRI/SNRI	8
Berman et al 2007	Aripiprazole	SSRI/SNRI	6
Marcus et al 2008	Aripiprazole	SSRI/SNRI	6
Berman et al 2008	Aripiprazole	SSRI/SNRI	6

Nelson JC, Papakostas G. *Am J Psychiatry*. 2009;166:980-991.

Table 2. Randomized, Double-Blind, Placebo Controlled Studies of Unipolar and Bipolar Depression

Author/Year	Stimulant/Stimulant Alternative	Population Studied	N	Treatment Comparisons	Results
Patkar et al, 2006[16]	OROS methylphenidate	Treatment-refractory unipolar depression	60	OROS methylphenidate + antidepressant (n = 30) Placebo + antidepressant (n = 30)	No significant between-group difference ($P = .22$)
Ravindran et al, 2008[17]	OROS methylphenidate	Treatment-refractory unipolar depression	145	OROS methylphenidate + antidepressant (n = 73) Placebo + antidepressant (n = 72)	No significant between-group difference ($P = .74$)
Trivedi et al, 2013[18]	Lisdexamfetamine	MDD with partial response to escitalopram	129	Escitalopram + lisdexamfetamine (n = 65) Placebo + lisdexamfetamine (n = 64)	Significant between-group difference in baseline-to-endpoint MADRS score decrease ($P = .0902$)
DeBattista et al, 2003[19]	Modafinil	Residual unipolar depression: subjects with only partial response to at least 6 wk of treatment with SSRI	136	Modafinil + SSRI Placebo + SSRI	No significant difference between modafinil and placebo in baseline-to-endpoint change in HDRS, ESS, CGI, FSS scores
Fava et al, 2005[20]	Modafinil	Residual unipolar depression: subjects with only partial response to at least 8 wk of treatment with SSRI	311	Modafinil + SSRI Placebo + SSRI	Significant difference between modafinil and placebo in baseline-to-endpoint CGI ($P = .02$) and BFI ($P = .05$) scores
Frye et al, 2007[21]	Modafinil	Treatment-resistant bipolar depression	85	Modafinil + mood stabilizer (n = 41) Placebo + mood stabilizer (n = 44)	Significant between-group difference in percentage of patients with 50% baseline-to-endpoint improvement in IDS scores ($P = .038$)
Dunlop et al, 2007[22]	Modafinil	Unipolar depression, single episode or recurrent Off antidepressant treatment for 14 d prior to first visit	73	Modafinil + fixed-dose SSRI (n = 37) Placebo + fixed-dose SSRI (n = 36)	Study halted due to reports of suicidal ideation in 2 modafinil patients
Calabrese et al, 2010[23]	Armodafinil	Treatment-resistant bipolar I depression	257	Armodafinil + mood stabilizer (n = 128) Placebo + mood stabilizer (n = 129)	Significant between-group difference in baseline-to-endpoint improvement in IDS scores ($P = .08$)
Abolfazli et al, 2011[24]	Modafinil	Unipolar depression Subjects must be free of psychotropics for 4 wk prior to study	46	Modafinil 200 mg bid + fluoxetine 40 mg/d (n = 23) Placebo + fluoxetine 40 mg/d (n = 23)	Significant between-group difference in baseline-to-endpoint HDRS scores ($P = .001$)
Michelson et al, 2007[5]	Atomoxetine	Residual unipolar depression symptoms following 8 wk of treatment with sertraline	146	Atomoxetine + sertraline (n = 72) Placebo + sertraline (n = 74)	No significant between-group difference in primary outcome measures ($P = .865$)

Abbreviations: BFI = Brief Fatigue Inventory; CGI = Clinical Global Impressions scale; CGI-BP = Clinical Global Impressions scale, Bipolar Version; ESS = Epworth Sleepiness Scale; FSS = Fatigue Severity Scale; HDRS = Hamilton Depression Rating Scale; IDS = Inventory of Depressive Symptomatology; MADRS = Montgomery-Asberg Depression Rating Scale; OROS = osmotic release oral system; SSRI = selective serotonin reuptake inhibitor.

Corp SA et al. J Clin Psychiatry. 014 Sep;75(9): 1010-8

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THE LANCET

Efficacy, safety, and tolerability of augmentation pharmacotherapy with aripiprazole for treatment-resistant depression in late life: a randomised, double-blind, placebo-controlled trial

Eric J Lenze, Benoit H Mulsant, Daniel M Blumberger, Jordan F Karp, John W Newcomer, Stewart J Anderson, Mary Amanda Dew, Meryl A Butters, Jacqueline A Stack, Amy E Begley, Charles F Reynolds III *Lancet* 2015; 386: 2404–12

- Age >60
- 12 week of venlafaxine (468) → nonremitters
- 12 week aripiprazole (n=91) vs. placebo (n=90)
- 44% vs. 29% achieved remission; NNT = 7

	Aripiprazole (n=91)	Placebo (n=90)
SAEs	4 (4%)	2 (2%)
AEs leading to discontinuation of study medication	3 (3%)	3 (3%)
Emergent suicidal ideation (in those with no ideation at start of phase)	13/61 (21%)	19/65 (29%)
Suicide	1 (1%)	0
Extrapyramidal syndromes		
Akathisia	24 (26%)	11 (12%)
Mild	19 (21%)	9 (10%)
Moderate–severe	5 (5%)	2 (2%)
Persistent (still present at last visit of phase)	5/85 (6%)	2/84 (2%)
Dyskinesia	0/85	2/84 (2%)
Parkinsonism	15/86 (17%)	2/81 (2%)
QTc prolongation on electrocardiogram (to ≥480 ms)	1/78 (1%)	0/79
Mean QTc change (SD), ms	+1·9 (30·8)	+1·6 (25·9)

Data are n (%) or n/N (%), unless otherwise specified. AE=adverse event. SAE=severe adverse event.

***Table 3*: Adverse events and tolerability measures during the augmentation phase**

Lancet 2015; 386: 2404–12

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HOW DO YOU KNOW YOU'VE SUCCESSFULLY TREATED DEPRESSION?

HAM-D <=7

MADRS <=10

PQH-9 <5

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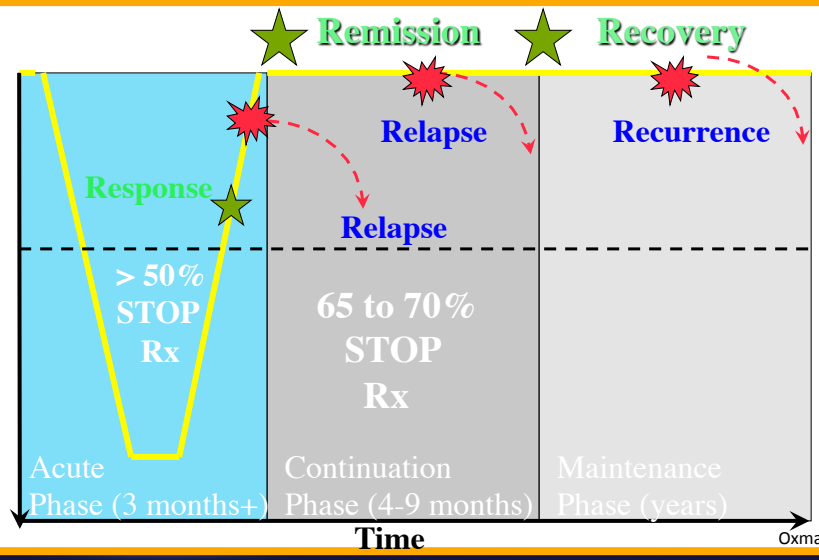
Treatment Phases



Continuation/Maintenance

- If patient recovers, continue therapy over 6-9 months, then taper and discontinue.
- People with 3 prior episodes have 3 year recurrence risk of 85% without medication maintenance.
- Treatment may be life-long. Decision is based on severity of episodes and patient preference.

Treatment Resistant Depression

- Bipolar depression
  Lamotrigene, antipsychotics, lithium
- Depression with psychosis
  Antipsychotics
- Depression with severe anxiety
  BZPs short-term (<2 weeks), antipsychotics
- Depression comorbid with personality disorders
  Boundary setting/Behavioral therapies (CBT/DBT)

ECT

- Indications:
  - Severe depression with catatonic or psychotic features
  - High risk of suicide
- Response rates from 70-90%
- Contraindication: ICP, intracranial tumors
- 3x/wk with avg number of treatments
  8-12, maintenance therapy
- Side effects: Short term memory loss

TMS vs. ECT

Table 4 Summary of meta-analyses comparing transcranial magnetic stimulation and electroconvulsive therapy in depression

Meta-analysis	No. of studies/sample size	Mean age range	Summary of effect
Berlim *et al*[47] 2013	7/294	31.0-63.6	NNT = 6 favouring ECT for short-term response; at baseline, ECT samples had shorter illness duration and higher HAMD scores than rTMS samples. Age has no moderating effect on the differences
Ren *et al*[46] 2014	9/425	31.0-63.6	NNT = 7 for response; 6 for remission favouring ECT; No significant group difference when continuous change in HAMD scores is considered as outcome; In the absence of psychosis, rTMS as efficacious as ECT; Cognitive domains are better preserved after rTMS than ECT
Micallef-Trigona[49] 2014	9/384	34.0-63.6	Hedges' g = 1.28 for rTMS and 2.15 for ECT. rTMS produces a mean reduction of 9.3 points; ECT produces a mean reduction of 15.42 points on the HDRS
Xie *et al*[48] 2013	9/395	31.0-63.6	OR = 0.55 for response and 0.49 for remission in favour of ECT; rTMS is better tolerated than ECT (OR = 0.70); rTMS > 1200 stimuli/d is as efficacious as ECT

NNT: Number needed to treat; TMS: Transcranial magnetic stimulation; ECT: Electroconvulsive therapy; HAMD: Hamilton Depression Rating Scale.

Sabesan et al., World J Psychiatry. 2015;5(2): 170–181.

Post-Acute/Long-term Care

Make accurate Diagnosis

- Get info from staff and family
- Use PHQ9 from MDS 3.0
- Make indirect observations

Use Objective Treatment Outcomes

- Post-Acute: participation in rehab
- Long-term: define objective treatment goal
- Benefits vs. risks?
- Acuity, Severeity

APPENDIX

Disclosures

Employment
- Doctor on Demand (Telehealth)

Research Support
- Brain & Behavior Research Foundation (NARSAD)

Royalty
- Lippincott's Primary Care Psychiatry
- APPI Preventive Medical Care in Psychiatry

Consultant
- Blue Cross Blue Shield, FEP; P&T Committee

Summary

Diagnosis

1. Use PHQ or other instruments whenever possible
2. Additional histories: medical, medications, psychiatric history, family history, substance, psychosocial
3. Always assess (and document) suicide risk

Treatment

1. Options: supportive, pharmacotherapy, psychotherapy, combination therapy, medication augmentation, and ECT
2. SSRI/SNRI/bupropion/mirtazapine are first line medication options
3. Choose agent based on comorbidity, side-effect profile and patient preference
4. Medication non-adherence needs to be addressed
5. Follow-up is much more frequent than most other illnesses and needs to be tailored based on severity
6. Depression is a chronic illness with high relapse rate

Mirtazapine (Remeron)

- NaSSA (noradrenergic specific serotonergic antidepressant)
  - Central α 2 autoR antagonist
  - 5-HT2A, 5-HT2C, 5-HT3 antagonist
  - H1 antagonist
- Lower dose is associated with more sedation
- Dosage: 15 mg qhs, usual dose 15-45 mg qhs. Max dose 60 mg qhs.

Mirtazapine (Remeron) cont.

- SE: Sedation, wt gain (4kg), dry mouth
- Minimal nausea, no sexual SE
- Moderately protein bound, metabolized by 1A2, 2D6, 3A4. Half-life 20-40 hours. Eliminated primarily via urine
- Precautions: rarely mild elevations in LFT's
- Not an inhibitor of P450 system.

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Challenging Cases in Pain and Depression:
Interactive Panel Discussion

Karl Steinberg MD, CMD, HMDC

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Speaker Disclosure Statement

Karl Steinberg, MD receives honorarium for his role in the:

- Boehringer Ingelheim non-branded Speakers Bureau for Transitions of Care presentations
- Sunovion Scientific Advisory Board

All conflicts of interest have been resolved in accordance with the ACCME's Standards for Commercial Support.

Case No. 1: Mildred B.

- 94 y/o woman, admitted to Hurricane Manor SNF for LTC in 2013 due to ADL dependence
- Widowed in 1994
- Has a local daughter and son who are involved in her care, daughter holds power of attorney for HC
- POLST: DNR, Selective Treatment, No Tube Feeding
- Gradually progressive dementia, latest BIMS score 10
  - Can make needs known, no behavioral issues, deaf
- PHQ-9 score is 4, indicating "minimal depression"

Case No. 1: Mildred B.

- **Past Medical History**
  - Longstanding Rheumatoid Arthritis
  - Hypertension
  - GERD
  - Presumed vascular dementia
  - Abdominal Aortic Aneurysm, 5 cm, asymptomatic
  - Osteoporosis
  - Major Depressive Disorder in the past, for which she was treated with fluoxetine for 2 years after husband's death

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Case No. 1: Mildred B.

- Past Surgical History
  - Both knees replaced (2001, 2004)
  - Left hip replaced (1995)
  - Gall bladder removal (1982)
- Functional Status
  - Requires contact guard assist for transfers
  - Ambulates independently with FWW, a little unstable
  - Minimal assist for toileting, LE dressing, bathing
- Nutritional Status: 65" tall, 110 pounds, BMI 18.3

Case No. 1: Mildred B.

- **Current Medications**
  - Acetaminophen 650 mg four times daily routinely
  - Glucosamine/Chondroitin 1500/800 mg daily
  - Famotidine 20 mg daily for GERD
  - Lisinopril 10 mg daily for hypertension
- Does have chronic moderate arthritis-related pain, usually reports 4/10 on a pain scale, multiple joints including hands and shoulders

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Case No. 1: Mildred B.

- Mrs. B falls onto her buttocks doing an unassisted transfer getting out of bed
- Complains of severe low back pain
- Dr. Cavalier orders L-S spine X-ray stat
- Acute 50% L1 compression fracture noted, moderate degenerative L-spine changes
- She now requires mod assist for transfers and ambulation, and can only walk a few steps

Case No. 1: Mildred B.

L1 Compression Fracture—What Do We Do?

Panel Discussion

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Case No. 1: Mildred B.

- Dr. C orders hydrocodone/APAP 5/325 mg, 1 tab q6h prn moderate pain, 2 for severe pain
- Mrs. B spends the next several days in bed, reports severe nausea from medication, and becomes incontinent of urine
- She receives an average of 2 doses a day of the hydrocodone for the first 3 days, sometimes 1 tab, sometimes 2 tabs
- On day 3 she received 2 tabs at 1 pm and at dinnertime she is crying in pain, saying "I want to die." She rates her pain as 10/10 and reports severe abdominal pain too

Case No. 1: Mildred B.

- Nurse informs Mrs. B and her daughter that she cannot give more hydrocodone until 7 p.m.
- Daughter calls Dr. B's service and tells on-call doc that her mom is getting inadequate pain control and is having lower abdominal pain in addition to back pain
- Dr. Empatha orders morphine sulfate sustained-release 30 mg every 12 hours x 1 week, and says go ahead and give the prn dose now

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Case No. 1: Mildred B.

- Mrs. B becomes markedly confused the next day, thinks her daughter is her mother, is very somnolent and continues to complain of severe back and abdominal pain
- CNA reports to charge nurse that Mrs. B has not had a bowel movement since 2 days before the fall (6 days ago) and has not urinated since evening shift yesterday, meal intake has been 25-50% with 2 meal refusals in past 4 days, and has stage 2 buttock ulcer

Case No. 1: Mildred B.

- Dr. C is informed of Mrs. B's declining condition and requests a bladder scan, adds senna 8.6 mg, 2 tabs every bedtime, and asks nursing to check for impaction
- Mrs. B has 900 ml in her bladder, so Foley catheter is ordered and inserted
- She is impacted and is digitally disimpacted by nursing
- She repeatedly moans, "Please kill me now" and reports that she sees large tarantulas crawling on walls and bed, which is very disturbing. Screams on and off all night.

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Case No. 1: Mildred B.

- Next morning (5 days post-fall) the hallucinations are reported to Dr. C, and he orders risperidone 0.5 mg bid for psychosis; she continues to report severe pain when awake
- Dr. C also orders CBC, CMP, u/a for the following morning
- Results:
  - Sodium 151, BUN 48 (baseline ~20), creatinine 0.8, indicating dehydration
  - Albumin 2.9 (baseline 3.6)
  - Normal wbc, mild anemia,
  - Urine with 5-10 wbc/hpf and rare bacteria, specific gravity 1.030

Case No. 1: Mildred B.

- Post-fall day 6, in response to labs, Dr. C orders IV normal saline 75 ml/hr for 2 liters, with follow-up labs 2 days later
- They weigh her on day 6 and she weighs 101 (↓ 9 lbs.)
- On day 8, Mrs. B's urine culture comes back with >100K colonies of ESBL+ *E.coli*
- Dr. C orders IV piperacillin/tazobactam 3.375 g q6h x 10d
- She yanks her IV out twice, Dr. C orders wrist restraints
- Facility has no-restraint policy so she is sent to hospital

Case No. 2: Jesse R.

- 57-year-old paraplegic man admitted to Shady Manor after hospitalization for endocarditis thought to be related to IV heroin use
- History of opioid dependence for preceding 15 years, started with prescribed opioids, brief periods of abstinence
- Paraplegic for 22 years after a gunshot wound to T-10
- History of recurrent severe major depressive disorder, suicide attempts x 2 (overdose). Current PHQ-9 score is 8, mild depressive symptoms. "Glass-half-empty" attitude

Case No. 2: Jesse R.

Additional Past Medical History

- Hypertension
- Gout
- Chronic Neuropathic LE Pain related to spinal cord injury
- Neurogenic bowel and bladder, does intermittent self-cath and they do a suppository every 3rd day with rectal stim for bowel evacuation

Case No. 2: Jesse R.

Social History

- Smokes 10 cigarettes a day supervised by staff on patio
- Leaves facility in his power wheelchair several times a week and sometimes returns smelling of alcohol—unknown how much he consumes, because he denies it
- Divorced, ex-wife still involved in his care
- Has two adult sons, one estranged, the other lives in Portland but has DPOAHC
- POLST: DNR, selective treatment, no tube feeding
- Refuses screening exams (colonoscopy/FOBT), etc.

Case No. 2: Jesse R.

Medications

- Allopurinol 300 mg daily for gout
- Valsartan 80 mg daily for hypertension
- Citalopram 40 mg daily for depression
- Gabapentin 600 mg three times daily for neuropathic pain
- Clonazepam 1 mg every 12 hours for anxiety

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Case No. 2: Jesse R.

Medications (cont'd)

- Oxycodone/APAP 10/325 one or two tablets q4 hours prn for pain, not to exceed 10 tablets in 24 hours
  - He is at the nurses' station every 4 hours throughout the day
  - Predictably/consistently says his pain score is between 8 and 10 before medication, and 6 or 7 post-dose
- Docusate sodium 100 mg twice daily (stool softener)
- Vitamin D3 2000 IU daily

Case No. 2: Jesse R.

- He reports that his chronic cough has worsened in last couple of weeks & it hurts his upper back when he coughs
- Dr. Bueno orders CXR
- Reveals 3.5 cm RUL mass and a bone lesion representing probably metastatic disease in the third and fourth ribs
- Mr. R. becomes very angry when told of the CXR findings and begins refusing showers and other personal care
- Refuses biopsy or further workup

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Case No. 2: Jesse R.

Probable Metastatic Lung Cancer with Painful Rib Metastases—

What Do We Do?

Case No. 2: Jesse R.

- Dr. B orders routine oxycodone ER 40 mg every 12 hours, rapidly titrating up to 200 mg every 12 hours over the next 14 days, with continued oxycodone/APAP for breakthrough pain
- Hospice consult offered, Mr. R declines
- Methadone is increased over 2 weeks to 10 mg four times daily, and Mr. R reports that the oxycodone doesn't seem to help with breakthrough pain,
- Mr. R reports increasingly severe radiating pain coming around the front of chest
- Staff think he is drug-seeking and discourage him from taking the oxycodone and tell him "you don't look like a 10 out of 10"

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Case No. 2: Jesse R.

- Over the next 3 weeks, Mr. R becomes progressively more depressed and withdrawn with poor appetite
  - He is noted to have dropped from 154 to 144 pounds
  - Refuses many meals, a friend is sneaking him in liquor
- In those 3 weeks he has only gone out on pass one previous time, now signing himself out
- As he is leaving, he offhandedly tells nurse “I am going out to drive my wheelchair in front of an oncoming truck.”

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PA/LTC Update #2
How To Survive In Post-Acute Care
Terry Hill, MD, FACP
Vice President for Performance Strategy
Hill Physicians Medical Group
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Speaker Disclosure Statement
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Dr. Terry Hill has no relevant financial relationships with commercial interests to disclose.
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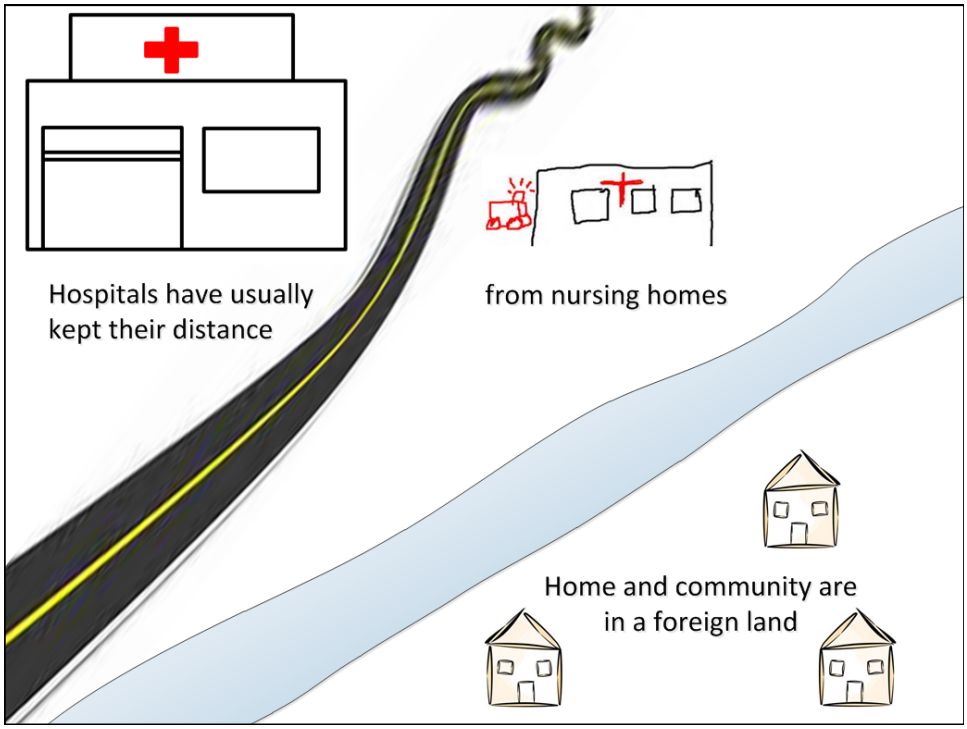
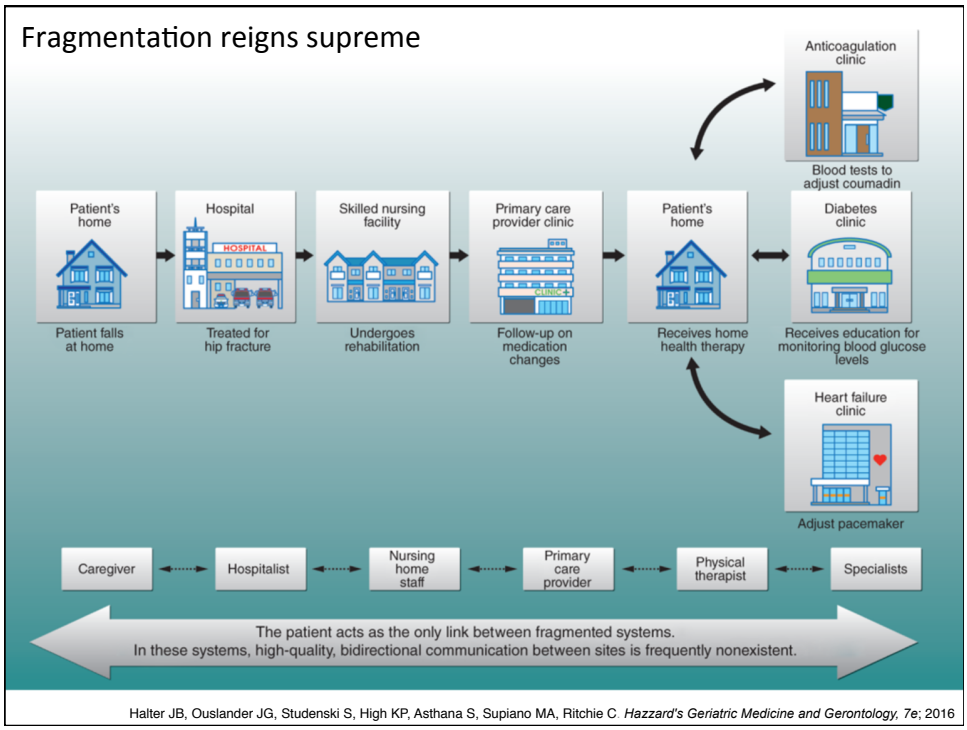
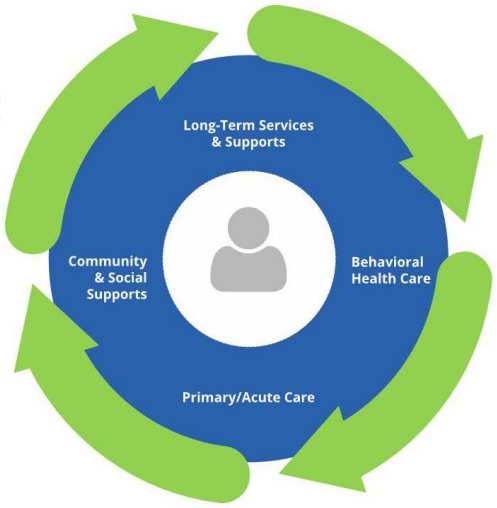

Hospitals have usually
kept their distance
from nursing homes
Home and community are
in a foreign land


Fragmentation reigns supreme
Anticoagulation clinic
Blood tests to adjust coumadin
Patient's home
Patient falls at home
Hospital
Treated for hip fracture
Skilled nursing facility
Undergoes rehabilitation
Primary care provider clinic
Follow-up on medication changes
Patient's home
Receives home health therapy
Diabetes clinic
Receives education for monitoring blood glucose levels
Heart failure clinic
Adjust pacemaker
Caregiver
Hospitalist
Nursing home staff
Primary care provider
Physical therapist
Specialists
The patient acts as the only link between fragmented systems.
In these systems, high-quality, bidirectional communication between sites is frequently nonexistent.
Halter JB, Ouslander JG, Studenski S, High KP, Asthana S, Supiano MA, Ritchie C. Hazzard's Geriatric Medicine and Gerontology, 7e; 2016

Essential Attributes of a High-Quality System for Adults with Complex Needs

Attribute 1:

Each individual's range of needs and goals, both medical and non-medical, as well as for family/caregivers, are identified and re-evaluated on an ongoing basis to drive care plans.



Attribute 2:

Each individual's needs are addressed in a compassionate, meaningful, and person-focused way and incorporated into a care plan that is tailored, safe, and timely.

Attribute 4:

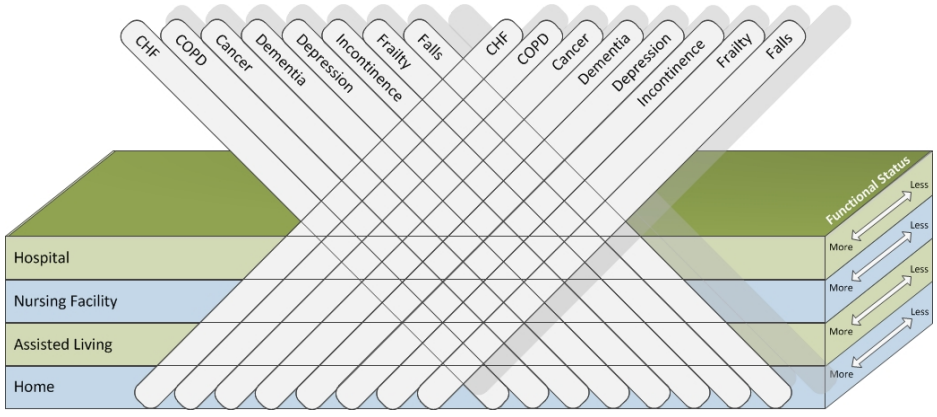
Individuals and their family/ caregivers continually inform the way the delivery system is structured to ensure that it is addressing their needs and providing resources tailored to them.

Attribute 3:

Individuals have a cohesive, easily navigable delivery system so that they can get the services and information they want by themselves or with support when needed, and avoid the services they do not need or want.

The SCAN Foundation. What matters most: essential attributes of a high-quality system of care for adults with complex needs (full report). 2016.

Terry's Vastly Oversimplified Schematic Suggesting the Overlay of Multimorbidity, Sites of Care, and Function



- The top third of Medicare patients has over two million distinct combinations of diseases.
- This third is responsible for about 80% of Medicare FFS expenditures.

Sorace J, et al. The complexity of disease combinations in the Medicare population. *Popul Health Manag.* 2011;14:161.

The Care Plan (Concerns, Goals, Interventions , and Care Team), along with Risk Factors and Decision Modifiers, iteratively evolve over time

Garber L, Harvell J, Gallego E. New Standards to Support Coordinated Care Planning: Overview for NY Department of Health. 2014; https://www.healthit.gov/sites/default/files/nydohcareplanning_082014_.pdf.

Chart 6-17. Discharge destination of Medicare fee-for-service beneficiaries, 2006–2014

Destination	2006	2013	2014	Percentage point change 2006–2014
Home self-care	52.3%	46.8%	46.0%	–6.3%
Skilled nursing or swing bed	18.8	20.7	21.0	2.2
Home with organized home health care	13.8	16.5	16.8	3.1
Inpatient rehabilitation facility	3.4	3.6	3.8	0.4
Long-term care hospital	0.9	1.2	1.2	0.3
Inpatient psychiatric facility	0.4	0.5	0.5	0.1
Hospice	1.6	2.7	2.9	1.2
Other setting (e.g., ICF, nursing facility)	2.0	1.7	1.6	–0.4
Transferred to other acute care hospital	2.5	2.1	2.2	–0.3
Left against medical advice	0.6	0.8	0.8	0.2
Died in hospital	3.8	3.4	3.3	–0.5

MedPAC. *A Data Book: Health Care Spending and the Medicare Program*, 2016

For all US Medicare FFS admission episodes in FY 2015:

- pre-admission 3 days cost 3%,
- hospital stay cost 53%,
- post-acute 30 days cost 44%

Table. Components of Unadjusted Total Episode Payments, by MSPB Category in Fiscal Year 2015 HVBP[a]

Characteristics	MSPB Category, $ (%) Low Cost (n = 135)	Medium Cost (n = 1630)	High Cost (n = 1429)	Difference (High Minus Low)
MSPB metric	0.51-0.84	0.85-0.99	1.00-2.13	
Preadmission	372 (3)	547 (3)	615 (3)	243
Index admission	7556 (60)	9618 (55)	10 006 (50)	2450
Postdischarge care				
SNF	1485 (11)	2824 (17)	3473 (18)	1988
Readmission	1325 (11)	1931 (11)	2995 (15)	1670
Other	1786 (15)	2345 (14)	2819 (14)	1033
Subtotal	4596 (37)	7100 (42)	9287 (47)	4691
Total	**12 523 (100)**	**17 265 (100)**	**19 908 (100)**	**7385**

Abbreviations: HVBP, hospital value-based purchasing; MSPB, Medicare-Spending-per-Beneficiary; SNF, skilled nursing facility.

[a] Low Cost indicates the MSPB score is equal to or lower than the mean of hospital scores in the first decile. Medium Cost indicates that the MSPB score is less than or equal to the 50th percentile of scores and greater than the mean of scores in the first decile. High Cost indicates that the MSPB scores are greater than the 50th percentile. Other includes spending in carrier costs, home health agency, outpatient, hospice, and durable medical equipment. Fiscal Year 2015 HVBP uses MSPB performance data from Calendar Year 2013. *P* values are from *t* tests comparing the average spending levels between high- and low-cost hospitals. *P*<.001 for all comparisons.

Das A, Norton EC, Miller DC, Chen LM. Association of Postdischarge Spending and Performance on New Episode-Based Spending Measure. *JAMA Intern Med.* 2016;176(1): 117-119

Decision on Discharge Destination to Home Health versus SNF…

Depends more on hospital, doctor, and discharge planner than it does on diagnosis.

- In the CMS Bundled Payments for Care Improvement (BPCI) initiative, hospitals decreased discharges to SNFs and increased home health use.

  CMS Bundled Payments for Care Improvement (BPCI) Initiative Models 2-4: Year 1 Evaluation & Monitoring Annual Report. The Lewin Group, 2015

- "Recovery from orthopedic surgery is better achieved in the beneficiary's home."

  Year 2 Evaluation & Monitoring Annual Report. The Lewin Group, 2016

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The Medicare Payment Advisory Commission (MedPAC) continues to promote a prospective payment system for post-acute care

Conclusions

- A PAC PPS could be implemented as soon as 2021
- Functional assessment data should be incorporated into the risk-adjustment method when it becomes available
- The implementation should include a short transition
- The level of PAC spending should be lowered

- PAC PPS bases payments on patient characteristics, not where patient is treated, e.g., home vs SNF vs inpatient rehab
- Eliminates current payment bias toward therapies unrelated to condition

Dateline 4/6/2017:

Good news from Washington DC!

Orrin Hatch (R-UT), Ron Wyden (D-OR) reintroduce CHRONIC Care Act

RECEIVING HIGH QUALITY CARE IN THE HOME

Extends the **Independence at Home** Demonstration Program.
Expands access to **home dialysis**.

ADVANCING TEAM-BASED CARE

Extends Medicare Advantage (MA) **special needs plans (SNPs)**, with more coordination.

EXPANDING INNOVATION AND TECHNOLOGY

Allows MA plans to offer **wider array of benefits**, adapted to specific populations
Promotes **telehealth** in MA, ACOs, and stroke.

IDENTIFYING THE CHRONICALLY ILL POPULATION

Provides **flexibility to be in ACOs**.

EMPOWERING INDIVIDUALS AND CAREGIVERS IN CARE DELIVERY

Reduces barriers to care coordination under ACOs.

Senate Finance Committee **Chronic Care Working Group** proposals adopted by CMS in 2016:

- Higher payment for chronic care management
- New payments for integrated behavioral health care
- Better care for patients with cognitive impairments
- Diabetes education and prevention

The delivery system that eliminates avoidable readmissions will have crossed the quality chasm.

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The delivery system that eliminates avoidable readmissions will have crossed the quality chasm.

Somewhat more discrete and defensible assertions:

1. A focus on care transitions offers the single most revealing line of sight into the strengths and imperfections of your delivery system.
2. Readmission reduction entails addressing multiple services across multiple sites of care, e.g., medication management, caregiver support, advance care planning, and palliative care.

Readmission reviews yield promising interventions to the extent that clinicians across disciplines, departments, and sites of care are:

1. Given a sustained opportunity to think together about the interplay of multilevel causes across multiple populations
2. Informed by rich and timely data
3. Supported by energetic project managers

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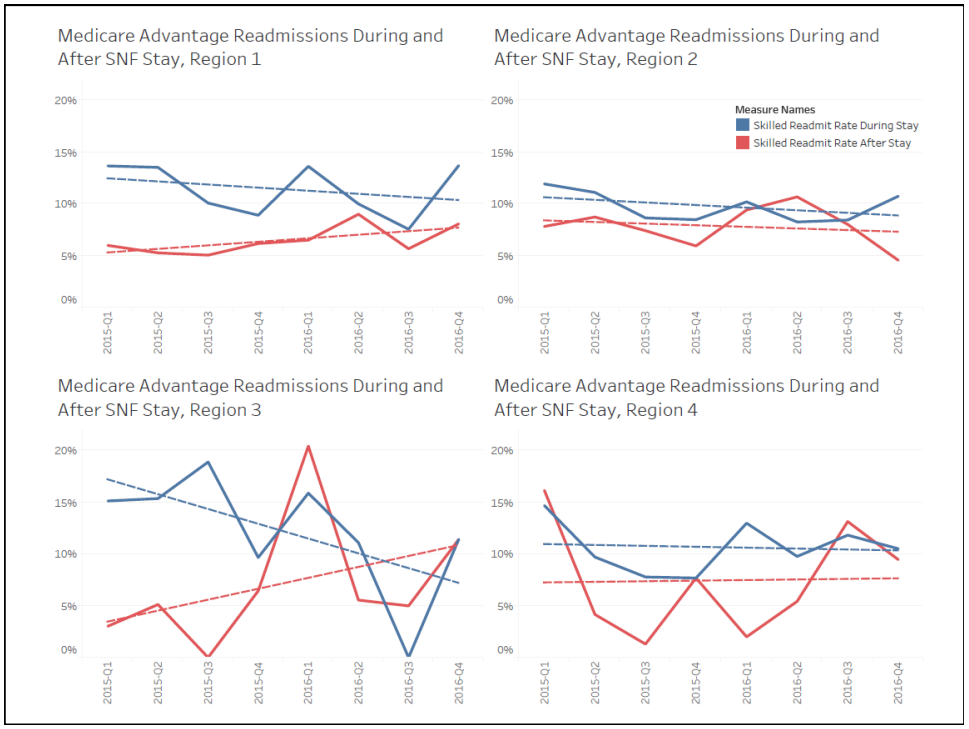
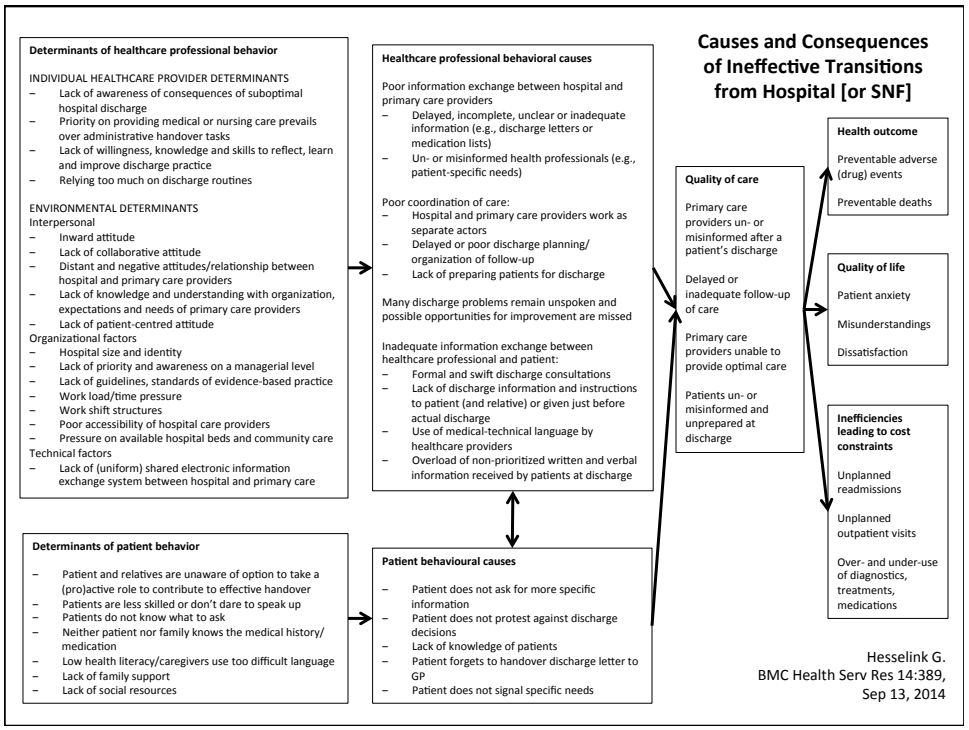
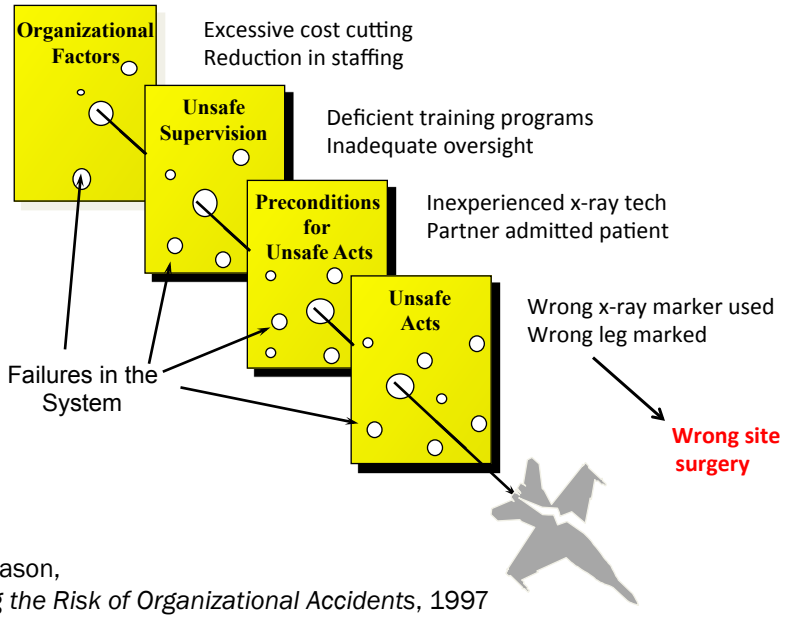

Medicare Advantage Readmissions During and After SNF Stay, Region 1
Medicare Advantage Readmissions During and After SNF Stay, Region 2
Measure Names
Skilled Readmit Rate During Stay
Skilled Readmit Rate After Stay
Medicare Advantage Readmissions During and After SNF Stay, Region 3
Medicare Advantage Readmissions During and After SNF Stay, Region 4
20%
15%
10%
5%
0%
2015-Q1
2015-Q2
2015-Q3
2015-Q4
2016-Q1
2016-Q2
2016-Q3
2016-Q4

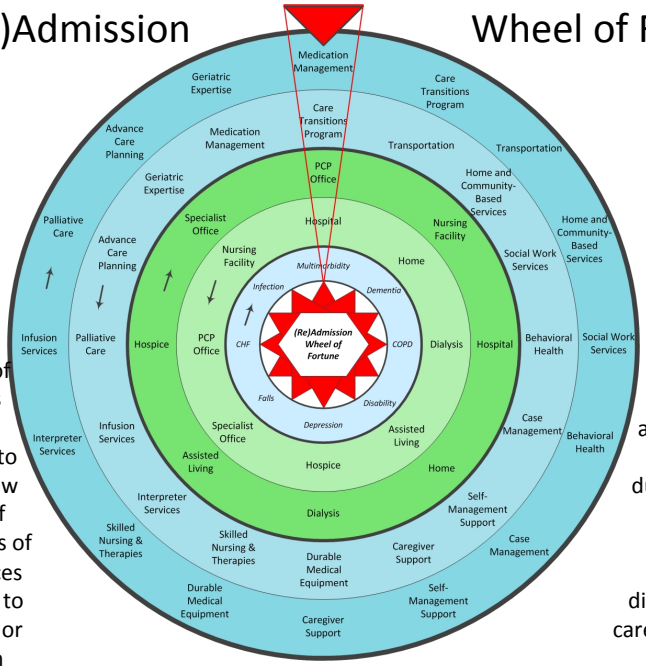

Causes and Consequences of Ineffective Transitions from Hospital [or SNF]
Determinants of healthcare professional behavior
INDIVIDUAL HEALTHCARE PROVIDER DETERMINANTS
– Lack of awareness of consequences of suboptimal hospital discharge
– Priority on providing medical or nursing care prevails over administrative handover tasks
– Lack of willingness, knowledge and skills to reflect, learn and improve discharge practice
– Relying too much on discharge routines
ENVIRONMENTAL DETERMINANTS
Interpersonal
– Inward attitude
– Lack of collaborative attitude
– Distant and negative attitudes/relationship between hospital and primary care providers
– Lack of knowledge and understanding with organization, expectations and needs of primary care providers
– Lack of patient-centred attitude
Organizational factors
– Hospital size and identity
– Lack of priority and awareness on a managerial level
– Lack of guidelines, standards of evidence-based practice
– Work load/time pressure
– Work shift structures
– Poor accessibility of hospital care providers
– Pressure on available hospital beds and community care
Technical factors
– Lack of (uniform) shared electronic information exchange system between hospital and primary care
Healthcare professional behavioral causes
Poor information exchange between hospital and primary care providers
– Delayed, incomplete, unclear or inadequate information (e.g., discharge letters or medication lists)
– Un- or misinformed health professionals (e.g., patient-specific needs)
Poor coordination of care:
– Hospital and primary care providers work as separate actors
– Delayed or poor discharge planning/ organization of follow-up
– Lack of preparing patients for discharge
Many discharge problems remain unspoken and possible opportunities for improvement are missed
Inadequate information exchange between healthcare professional and patient:
– Formal and swift discharge consultations
– Lack of discharge information and instructions to patient (and relative) or given just before actual discharge
– Use of medical-technical language by healthcare providers
– Overload of non-prioritized written and verbal information received by patients at discharge
Quality of care
Primary care providers un- or misinformed after a patient's discharge
Delayed or inadequate follow-up of care
Primary care providers unable to provide optimal care
Patients un- or misinformed and unprepared at discharge
Health outcome
Preventable adverse (drug) events
Preventable deaths
Quality of life
Patient anxiety
Misunderstandings
Dissatisfaction
Inefficiencies leading to cost constraints
Unplanned readmissions
Unplanned outpatient visits
Over- and under-use of diagnostics, treatments, medications
Determinants of patient behavior
– Patient and relatives are unaware of option to take a (pro)active role to contribute to effective handover
– Patients are less skilled or don't dare to speak up
– Patients do not know what to ask
– Neither patient nor family knows the medical history/ medication
– Low health literacy/caregivers use too difficult language
– Lack of family support
– Lack of social resources
Patient behavioural causes
– Patient does not ask for more specific information
– Patient does not protest against discharge decisions
– Lack of knowledge of patients
– Patient forgets to handover discharge letter to GP
– Patient does not signal specific needs
Hesselink G.
BMC Health Serv Res 14:389,
Sep 13, 2014

"Swiss cheese" model of accident causation



James Reason,
Managing the Risk of Organizational Accidents, 1997

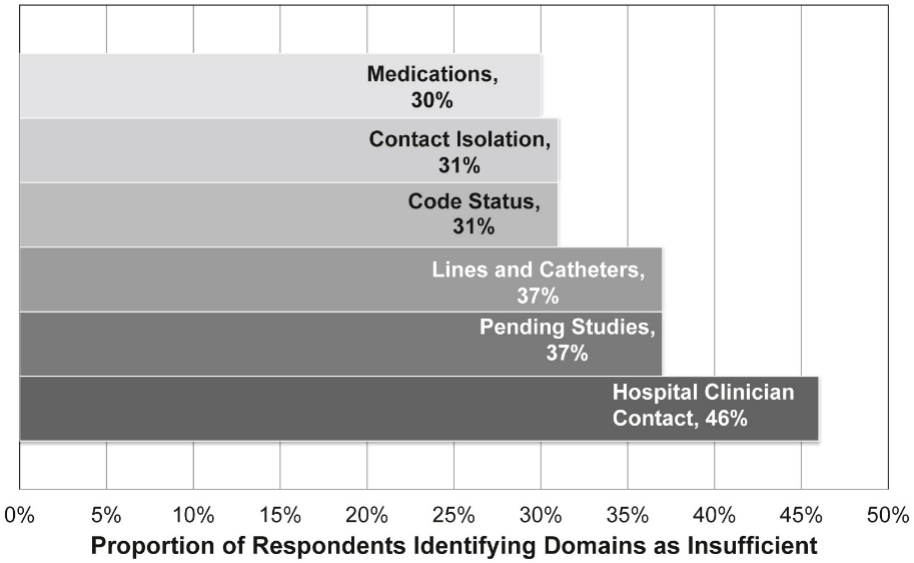
The (Re)Admission Wheel of Fortune



Each segment of the wheel spins independently, before coming to rest within a new configuration of conditions, sites of care, and services that contribute to the occurrence or avoidance of an admission.

The sites of care (in green) and services (in blue) are duplicated so as to allow for interactions between two different sites of care and between two different services.

The View from SNFs: Information Deficits



Jones CD et al. Hospital to post-acute care facility transfers: Identifying targets for information exchange quality improvement. JAMDA, Jan 2017

SNF Strategies to Become High-Value Partners

- Rehabilitation therapies 6-7 days a week
- MD / NP daily on-site coverage
- PT or OT home visits to assess for modifications needed
- Transitional care nurses to help patients and families navigate between hospital and SNF, and between SNF and home.
- Telephonic communication between hospitalist and SNF physicians during hospital discharge process, and between the nurse manager of the hospital unit and the nurse manager in the SNF
- Cross-setting linkages for electronic medical records
- Specialty rehabilitation programs for joint replacement, cardiac care or respiratory care
- SNF acquisition of home health and hospice providers to improve patient transitions

Hill Physicians
Your health. It's our mission.

American Hospital Association. The role of post-acute care in new delivery models. *TrendWatch*, December 2015

Readmission Reduction Bundles

Kaiser Permanente Northwest (2008): readmissions as "pivotal opportunity"

- Risk stratification
- A post-discharge "hotline" phone number
- Standardized same-day discharge summaries and instructions
- Office follow-up appointments timed according to risk score
- Telephonic nurse transition management for high-risk patients
- Medication reconciliation

Kaiser Permanente Southern California (2012) added:

- Process for triggering inpatient palliative care consultations
- Complex case conference program

Kaiser Permanente Northwest's evolution:

- Interventions for end-of-life issues, wound infections, and constipation
- Transition pharmacists
- Patient as an active member of the project team
- Care navigators and community resources

Tuso P et al. *Perm J.* 2013;17(3):58-63
Tuso P et al. *Perm J.* 2014;18(1):38-42
Rice YB et al. *Popul Health Manag.* 2016;19(1):56-62
Shen E et al. JAMA Intern Med. 2017;177(1):132-135

Case-by-case decision-making and skilled conversations can reduce burdensome transfers

- Challenges
  - Guilt pushes families to "do everything"
  - Families believe NF care is inferior to hospital care
  - MDs and NPs are unavailable nights and weekends
  - NF staff face difficult decisions in isolation
- What distinguishes one SNF from another
  - Case-by-case decision-making vs a default pathway
  - Trying to change families' minds vs deferring to their decisions

Cohen AB et al. Avoiding Hospitalizations From Nursing Homes for Potentially Burdensome Care. *JAMA Internal Medicine*. January 2017

New Safety Paradigms for Care at Home after Discharge

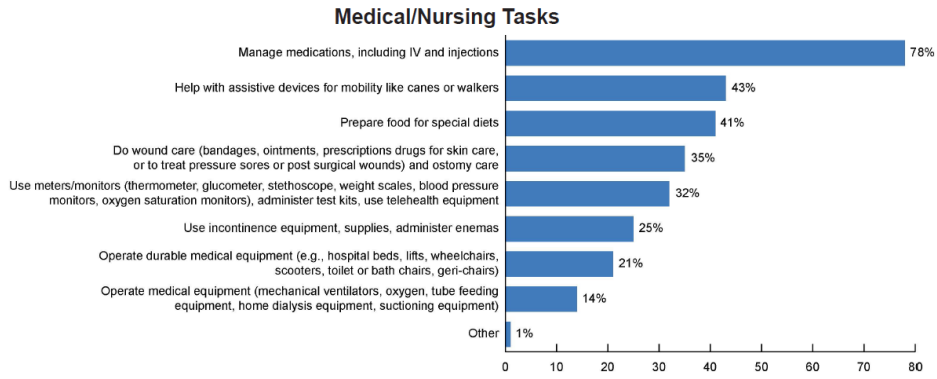
In the past, we felt that adverse drug reactions and falls at home were "regrettable."

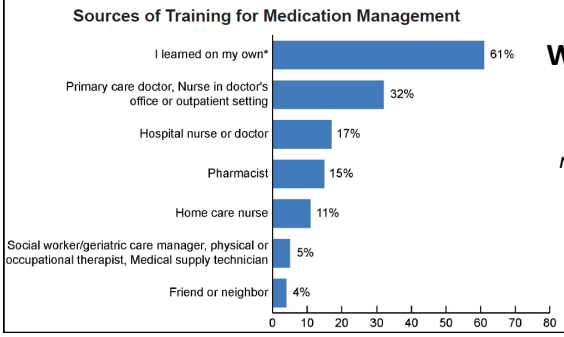
- Now we're now being held responsible.
- The perimeter of patient safety has expanded.

Need for self-management support and caregiver support

- Family caregivers often make promises out of love and a sense of responsibility… without being aware that this may be beyond their capacity.
- Ask, *"Can you really do what I'm asking you to do?"*

Vincent C, Amalberti R. *Safer Healthcare: Strategies for the Real World.* Springer Open; 2016.





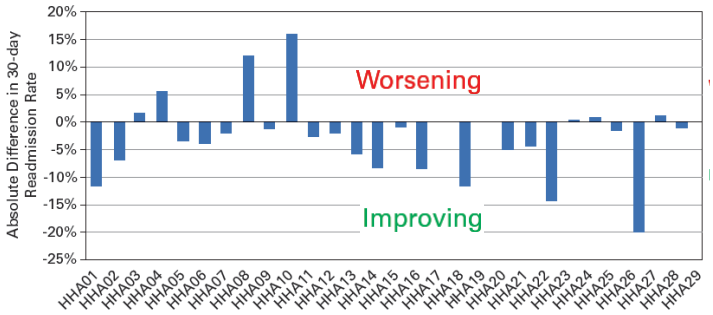
What Family Caregivers Do

"Individual health care professionals must fundamentally rethink and restructure the way they interact with family caregivers in daily practice."

Reinhard S. *Home alone: Family caregivers providing complex chronic care*. AARP, 2012.

Readmission reviews in home health…

- Lead to identification of root causes…
  - Which are amenable to interventions:
    - Frontloading HHA visits
    - Implementing *red flag* teaching tools
    - Medication reconciliation
    - Situation Background Assessment Recommendation (SBAR) communication
    - Self-management tools for patients

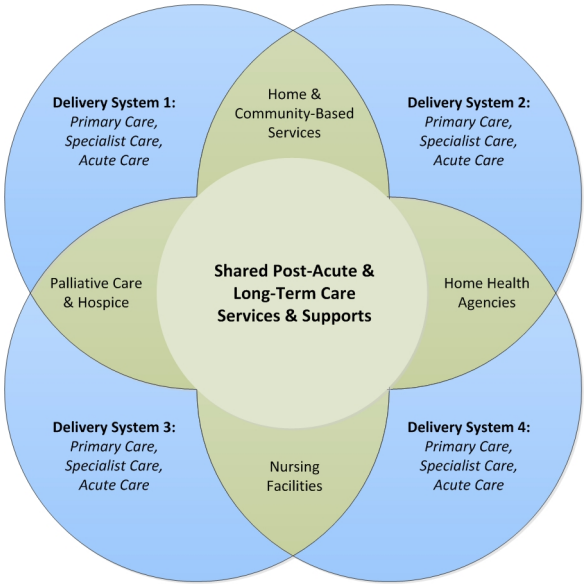


29 of 54 HHAs participated

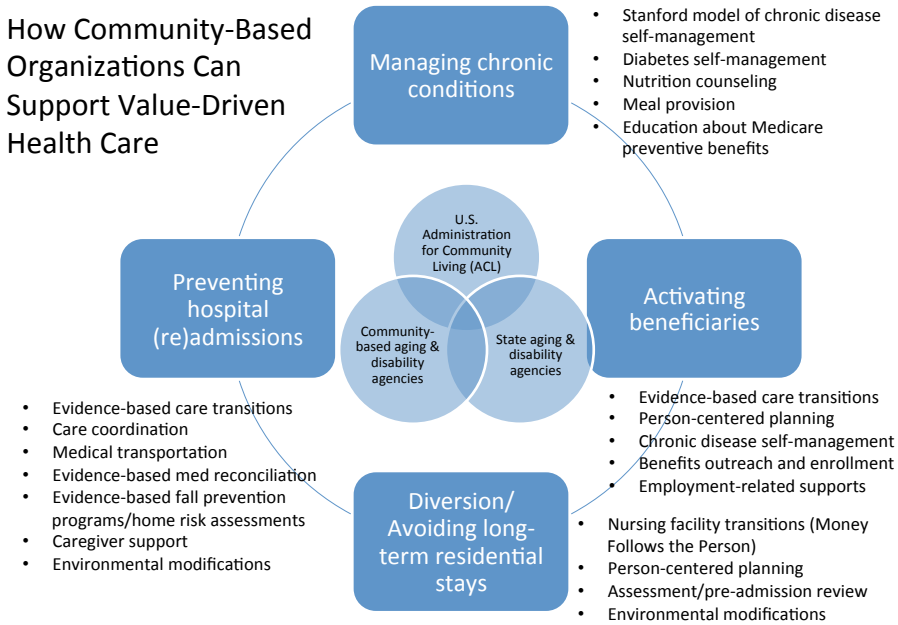
Most improved readmissions

Markley J et al. *Home Healthc Nurse*, March 2012

The Post-Acute and Long-Term Care Ecosystem



How Community-Based Organizations Can Support Value-Driven Health Care



- Stanford model of chronic disease self-management
- Diabetes self-management
- Nutrition counseling
- Meal provision
- Education about Medicare preventive benefits

- Evidence-based care transitions
- Person-centered planning
- Chronic disease self-management
- Benefits outreach and enrollment
- Employment-related supports

- Nursing facility transitions (Money Follows the Person)
- Person-centered planning
- Assessment/pre-admission review
- Environmental modifications
- Caregiver support
- LTSS innovations

- Evidence-based care transitions
- Care coordination
- Medical transportation
- Evidence-based med reconciliation
- Evidence-based fall prevention programs/home risk assessments
- Caregiver support
- Environmental modifications

Anand Parekh and Robert Schreiber, *Health Affairs* blog, July 10, 2015

Dateline 4/6/2017:

CMS' Accountable Health Communities Model selects 32 participants to serve as local 'hubs' linking clinical and community services

Premise

- Unmet social needs, e.g., food insecurity and inadequate or unstable housing
  - increase the risk of developing chronic conditions,
  - reduce an individual's ability to manage these conditions,
  - increase health care costs, and
  - lead to avoidable health care utilization.

Bridge organizations will serve as 'hubs' and will

- Partner with clinical delivery sites (e.g., physician practices, behavioral health providers, clinics, hospitals) to conduct systematic health-related social needs screenings and make referrals to community services
- Coordinate and connect beneficiaries to community service providers through community service navigation
- Align model partners to optimize community capacity to address health-related social needs

https://innovation.cms.gov/initiatives/ahcm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Cultural Conflicts and Keeping Patients Safe
Gwen Yeo, PhD
CALTCM 2017

Speaker Disclosure Statement

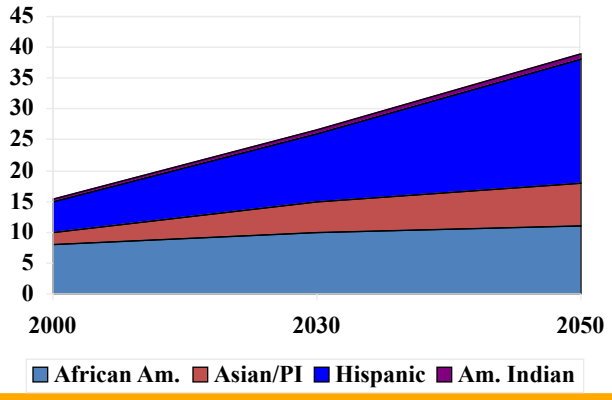
Dr. Yeo has no relevant financial relationships with commercial interests to disclose.

Disclaimer

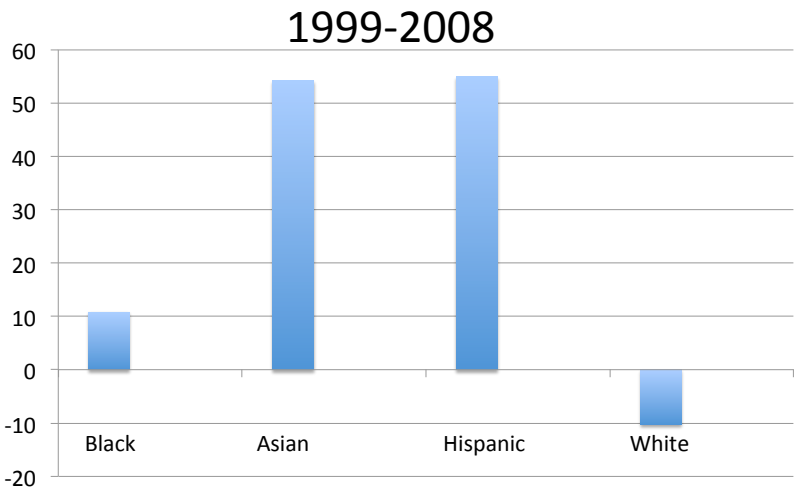
- I am not an expert
- There is very, very little (almost no) literature on the subject
- So, the session cannot be evidence based
- I don't know any "Best Practices"
- You are going to be the experts
- I have no conflicts of interest
- Thanks to Bureau of Health Professions at HRSA for support of Stanford GEC

The Ethnogeriatric Imperative
Projections of Percent of Ethnic Elders in U.S.

Our Ethnogeriatric Imperative
Projections of Percent of Ethnic Elders in U.S.



% Change in NH Residents



Feng et al., 2011

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Current Demographics

- Nursing home residents about 80% non-Hispanic White
- Staff in nursing homes predominantly non White from multiple ethnic backgrounds
- Possible conflicts: staff/staff, staff/resident, resident/resident

Three Cases Based on Real Situations

What is going on?

What cultural issues are involved?

What, if anything, needs to be done?

What are the implications for patient safety?

Case 1: Staff/Staff Conflict

- Nurse on duty calls resident's physician to ask for change in medication. Nurse's native language is Tagalog and physician is a native English speaker. Physician has trouble understanding her and ends up saying, "Get me someone who can speak English!" in an angry voice. Nurse feels hurt and unappreciated.

Case 2: Resident/Staff Conflict

- An African American CNA is attempting to provide assistance with ADLs to an older white man in the memory care unit. He pulls back from her and says, "Don't touch me, you dirty N_____." The CNA is shocked and hurt and leaves the room.

From the Literature

New York Study

- Nursing aides from minority backgrounds who perceive that residents are biased against them have less job satisfaction, more burnout, and are more demoralized.

Ramírez et al.,

Chicago Study

- Racial slurs toward minority nursing staff are common

Tellis-Nayak & Tellis-Nayak

Case 3: Resident/Staff Conflict

- A Latino CNA is taking vitals of a white resident. A maintenance man comes in the room and asked the CNA something in Spanish and they have a brief conversation. Later the resident complained to the LVN that they were talking about her and laughing at her.

Thank You

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Anticoagulation Use from a Patient Safety Perspective

Martha Stassinos, Pharm. D.
Clinical Pharmacist Specialist

CALTCM 2017

Speaker Disclosure Statement

Ms. Stassinos receives dividends as a minor stockholder in various pharmaceutical companies.

All conflicts of interest have been resolved in accordance with the ACCME's Standards for Commercial Support.

Yes, you should treat!
Benefits outweigh risks in elders

Atrial fibrillation

Clotting disorders

DVT – leads to PE (potentially deadly), long-term circulatory damage (thrombotic syndrome)

Chronic recurrent PE (especially in context of cancer)

Post hip and knee replacement(injectable or DOAC)

Bedridden more than 1 week

Most common reason for anticoagulation:
atrial fibrillation
Incidence increases with age
In the U.S. nearly half of those 75 or older
Old age is independent risk factor for stroke
Warfarin ↓ *stroke by about 2/3*

INCIDENCE OF A/FIB
1.5% at age 50 to 59
2.8% at age 60 to 69
9.9% at age 70 to 79
23.5% at age 80 to 89

Choice of agents

Newer anticoagulants – DOACs (direct oral anticoagulants)

dabigatran (Pradaxa®), rivaroxaban (Xarelto®), apixaban (Eliquis®), edoxaban (Savaysa®)

Expensive

Insurance may not cover

(may have to submit non-formulary request with justification)

Limited indications

At least as effective as warfarin: for stroke prevention

Incidence of major bleeding may be less in elderly as well as younger patients

INDICATIONS:

Atrial fibrillation or flutter without significant valvular disease (per EKG)
Cardioversion or ablation of a/fib
Acute DVT or PE
Chronic or recurrent DVT or PE
Prevention of VTE after hip or knee replacement

NOT FOR
Valve replacement (poorer outcomes)
CVA
Dialysis patients (no outcomes data)
Patients using chronic NSAIDs
Pregnant women (no outcomes data)

No bridging necessary periprocedurally

CAUTION: other anticoagulants (clopidogrel, aspirin, NSAIDs)

DOAC NUANCES

Dabigatran:
Must store in original container (contains desiccant which preserves potency)
not to be used in pill box
Twice daily dosing
Not for Cr clearance <30 ml/min

Rivaroxaban:
Once daily dosing (with p.m. meal is best for absorption)
Exception-acute VTE 15mg bid x 21 days, then 20mg ONCE daily
Tablet may be crushed
Not for Cr clearance <30ml/min

Apixaban:
Twice daily dosing
May be crushed
May use lower dose in >80 yrs or wt <60kg or Serum Cr >1.5mg/ dL
Not for Cr clearance <25ml/min or Serum Cr >2.5mg/ dL

Edoxaban:
Failed or intolerant to rivaroxaban
Not for use if renal function severely decreased (not for CrCl < 30 ml/min or > 95ml/min)
Unknown if crushing to swallow or use in feeding tube affects bioavailability

Warfarin

We have the most experience with it
*It is better than aspirin (and far better than nothing)**
It is proven effective with mechanical heart valves, clotting disorders (as well as a/fib and DVT)
Can be used in patients on dialysis (carefully)
*We have an antidote (oral or IV but **not** IM vitamin K)*

Bridging may be necessary periprocedurally in high risk patients
(takes 5 days to wear off & 5-7 days to get back to therapeutic range)

*Mant, et al. Birmingham Atrial Fibrillation Treatment of the Aged Study, BAFTA

Only 40% to 60% of older patients who are suitable candidates for anticoagulation actually receive it … and less so with age*

*Hagerty. Fall risk and anticoagulation for a fib in the elderly- a delicate balance

Worry #1
Will my patient fall and get subdural hematoma?

Elders with more co-morbidities fall more often.
Is this a contraindication to anticoagulation?
Would it be safer if I "just put them on an aspirin?"
What if I don't anticoagulate at all?

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History of falls are not an independent predictor of bleeding with warfarin

Multiple studies of atrial fibrillation patients find intracerebral hemorrhage, subdural hematoma uncommon
(absolute numbers are small)

*Estimation is that an individual would have to fall 295 times in one year for the risk of fall-related major bleeding to outweigh benefit of warfarin in reducing the risk of stroke in a/fib**

*Man-Son-Hing M, et al. Choosing antithrombotic therapy for elderly patients with atrial fibrillation who are at risk for falls.

Worry #2
Aren't elders more sensitive and more likely to have a stroke?

Incidence of stroke increases with age
Age is an independent risk factor
Embolic strokes – 95%
Hemorrhagic strokes – 5%
Treat embolic stroke risks
Control hypertension

Incidence of stroke increases with age
Age is an independent risk factor

Embolic strokes – 95%

Hemorrhagic strokes – 5%

It is important to treat to prevent embolic stroke

Controlling hypertension and avoiding use of multiple anticoagulants when possible helps prevent hemorrhagic stroke

All anticoagulants are subject to drug interactions

Interacting agents can increase clearance – reducing effectiveness

Decreasing clearance can produce excessive levels and bleeding

Adding other anticoagulants compounds bleeding risk

SSRI's decrease platelet aggregation

NSAIDs used chronically decrease platelet function

Patients self-medicate with non-prescription drugs and with supplements

Pharmacists get "alert fatigue" – It is important that they notify anticoagulant prescribers about new and interacting drugs

Natural is not synonymous with safe

Leeches, mosquitos – saliva is an anticoagulant

Garlic, ginger, gingko, ginseng, red clover, wheatgrass, willow bark, vitamin E, fish oil – have anticoagulant properties

You don't have to ask about leeches or mosquitos but you should ask about supplements (and explain why they are not advisable)

Well-managed anticoagulation provides the best efficacy and the lowest rate of complications

The greatest adverse event rates happen with polypharmacy (> 6 medications)

Warfarin with INR > 4.5 - 5

Providers managing warfarin in community dwelling elders:
Effective interview is your best management tool

1. *Is there anything new about your health? Eating less because of flu or other illness? Recent hospitalization? CHF symptoms?*
2. *Eating well? Any problems with teeth or swallowing?*
3. *Are you getting any vegetables regularly in your diet?*

With warfarin, green vegetables are NOT limited but consistency is encouraged. Sometimes well-meaning others advise against green vegetables or advocate tiny portions.

4. *Are there financial or transportation issues limiting food access (can advise meals on wheels – donation is optional)*
5. *Any new non-prescription medications or health food store supplements (herbs are fine if you are using them as seasonings but not in concentrated pill form!)*
6. *Are you taking Ensure® or similar?*
7. *Do you use a pill box? Who fills it? Fill it ONCE weekly*

Institutionalized elders – Similar concerns

Change in diet?
Inability to eat normally?
Relative bringing in Ensure® or similar?
Access to self-medication with OTCs or supplements?
Any new medications added by different prescriber?
CHF exacerbation slowing warfarin clearance?
COPD exacerbation – prednisone burst and taper?
DOACs – decrease in renal function effects clearance
Remember: don't use INR to monitor DOACs
There is currently no way to monitor DOAC levels

How often should INR be monitored?

When beginning warfarin test within one week
Once therapeutic level is attained – 2 weeks
If patient is consistently stable – monthly
Some very consistent patients – 6-8 weeks

More often with change in health status which could effect balance – especially major diet changes
CHF exacerbation sufficient to cause liver congestion will decrease clearance of warfarin and increase INR

Drug Interactions – most common

1. *Antibiotics (sulfas, ciprofloxacin, azithromycin, clarithromycin, metronidazole – shows up by days 5-7) doxycycline, amoxicillin, clindamycin are ok*
2. *Prednisone or other corticosteroids (not inhaled ones)*
3. *Cardiac-related: amiodarone (gradual)*
4. *Lipids – simvastatin (more significant), gemfibrozil*
5. *New stent? Clopidogrel + aspirin usually for 1 year*

Case example #1

Your 80 year old patient on warfarin for a/fib is going to dentist for deep cleaning or single tooth extraction.

What if she is taking a DOAC?

Case example #2

Your 75 year old patient is newly diagnosed with atrial fibrillation and started on warfarin. He is also started on amiodarone with a loading dose of 250mg QID for 1 week then 250mg once daily.

References and Resources

ER Visits Linked to Falls Spike Among California Seniors. Kaiser Health News February 21, 2017 https://www.google.com/amp/khn.org/news/er-visits-linked-to-falls-spike-among-california-seniors/amp/?client=safari

Hagerty T, Rich MW. Fall risk and anticoagulation for atrial fibrillation in the elderly: A delicate balance. *Cleveland Clinic Journal of Medicine*. 2017 January;84(1):35-40.

Mant J, Hobbs FD, Fletcher K, et al; BAFTA investigators; Midland Research Practices Network (MidReC). Warfarin versus aspirin for stroke prevention in an elderly community population with atrial fibrillation (the Birmingham Atrial Fibrillation Treatment of the Aged Study, BAFTA): a randomized controlled trial. *Lancet* 2007; 370:493–503.

Man-Son-Hing M, Nichol G, Lau A, Laupacis A. Choosing antithrombotic therapy for elderly patients with atrial fibrillation who are at risk for falls. *Arch Intern Med* 1999; 159:677–685.

Update of Antithrombotic Guidelines: Medical Professionalism and the Funnel of Knowledge. *Chest. 2016;149(2):293-294.*

Antithrombotic Therapy for VTE Disease: CHEST Guideline and Expert Panel Report. *Chest. 2016;149(2):315.352.*

http://clotcare.org/educationandreducedbleeding.aspx

http://www.outcomes-umassmed.org/dvt/best_practice/

http://silverbook.org: Atrialfibfactsheet

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Key to case example #1
Dentist is not a cardiologist so should not ask patient to stop warfarin or DOAC without consulting with anticoagulation manager. It is not necessary to stop anticoagulation for a single tooth extraction nor other dental procedure. If patient in taking warfarin it would be helpful to check INR 2 days prior so patient can skip one dose if INR is elevated (this gives enough time for INR to decrease).

Key to case example #2
There is a drug interaction between amiodarone and warfarin. It happens gradually over the course of the first month, increasing the INR. During this time it would be advisable to see the patient weekly and adjust warfarin dose. It can sometimes take more than a month before INR stabilizes. The opposite occurs when amiodarone is stopped and gradually leaches out of the tissue. Warfarin dose will need to gradually be increased.

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Fall Reduction: Balancing Reality

Elizabeth A. Landsverk, MD
Specialist in Geriatric Medicine, Founder

CALTCM 2017

Speaker Disclosure Statement

Dr. Landsverk has no relevant financial relationships with commercial interests to disclose.

Falls Suduko

- Develop process protocols
- Identify other medical issues
- Implement quality improvement

Develop Process Protocols

- Why do Patients in Acute Care Hospitals Fall? Can Falls be Prevented?

NIH J Nurs Admin 2009 June ; 39(6)

- 8 Focus groups of RNs CNAs
- Morse Falls Scale
- Information complete?
- Information used?

Process Protocols

- Information Access
- Signage
- Environment
- Teamwork
- Involving Patient/Family
- Collaboration

Process Protocols

Dykes et al.

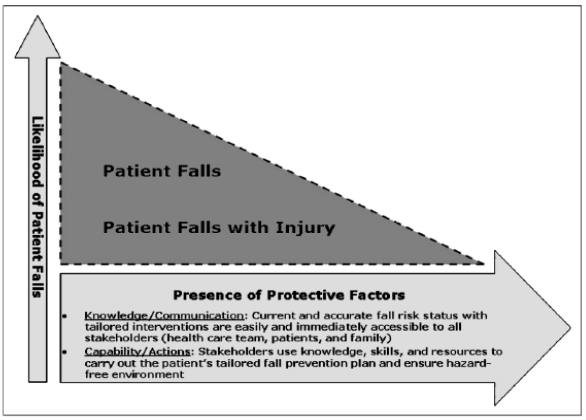

Figure 1.
Preventing patients from falling: a predictive model.

Medical Causes

- Hypnotic, Benzodiazepime use
- Hypertension/Hypotension
- Hypoglycemia/Dehydration
- Pain untreated
- Deconditioning
- Dementia/Poor safety awareness

Hypnotic, Benzodiazepine use

- Beers List
- Advise to keep active during the day
- No caffeine
- Assess and treat pain
- Hours sleep may need to be pushed back

Hypertension/Hypotension

- For the frail elders, do not treat hypertension unless over SBP 140 standing
- Address hypotension

Hypoglycemia/Dehydration

- For elders, maintain glucose between 100-200, not 80-120 to decrease risks of hypoglycemia
- Often elders have decreased sense of thirst and hunger (or medication side effects)

  Frequent fluids/ snacks (Ice Cream!) offered

Pain Treated

- Often, in Dementia, pain not identified by elder. Would advise low threshold for standing pain medication

  Long Acting Acetaminophen 650 BID/TID
- NSAIDS Caution! Beers List
- Low dose daily opiates for serious pain

  Norco 5/325 ½ tab TID

Deconditioning

- PT/OT to write Rx walking/transfer assistance
- RA program to keep ambulatory elders moving.
- Each day of bed rest leads to 5% muscle loss
- Decreases agitation and improves sleep
- Engaging activities

Deconditioning

- Dancing, Ta'i Chi, Raised Gardens
- FWW safer than canes
- Ambulators
- Reclining Wheelchair, extended leg rests
- Gel cushion/ Pomal Cushion

Summary

- Develop process protocol
- Address medical components
- Assess outcomes and refine

Dementia/Poor Safety Awareness

- High/Low bed and landing pad
- If impulsive, keep in observed areas
- Not restrained but safer…
  - Wheelchair at table for activities
  - Geri-chair
  - Merry Walker
  - Bean Bag chair?

Questions? Comments?

- Visit our website: elderconsult.com
- Follow us on Facebook: fb.com/elderconsult

Thank you,
Elizabeth A Landsverk, MD
Geriatrician


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Promoting quality patient care through medical leadership and education
Let's Go!: Team Management of Constipation, Diarrhea and Patient-Centered Nutrition
Dr. Denise Rettenmaier
Veterans' Home of California
Yountville, CA
Grateful for the assistance and contributions of the Veterans' Home LTC and Dementia Care staff
CALTCM 2017

Speaker Disclosure Statement

Dr. Rettenmaier has no relevant financial relationships with commercial interests to disclose.

Just Culture and Patient Safety
Let's Go! Constipation, Diarrhea and Nutritional Support

Let's Go!

Learning Objectives:

- A frank discussion of constipation, diarrhea and nutritional support within the Just Culture and Patient Safety framework
- Utilizing the LTC and Interdisciplinary team approach with the Just Culture ideology to managing constipation, diarrhea and pt nutrition
- Remember to include the Sherry Principles!
  - Honesty, Dignity, Quality of Life

Let's Go! Constipation, Diarrhea and Nutritional Support

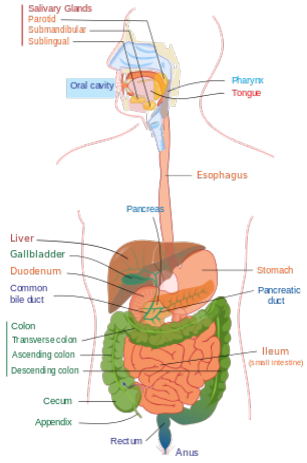
First-A few common sense concepts:

- It has to come out before it can go in
- Collect the sample before cleaning up! "NNT"
- Don't photograph that fecal impaction until it's been cleared!
- Yogurt for everyone daily

Lastly: The Ick factor-sorry!

Let's Go! Constipation, Diarrhea and Nutritional Support

Before we start, an overview of the GI Tract featuring the Magical Sigmoid Colon Valve



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Let's Go! Constipation, Diarrhea and Nutritional Support

- Nose and mouth/teeth-consume and masticate
- Esophagus-swallow and passes through to stomach
  - Upper 1/3 skeletal M, lower 2/3 smooth muscle
- Stomach-mixes chewed food with digestive juices and gastric acid; fundal relaxation triggered by nitrous oxide release to increase oral intake
  - Remember "Thanksgiving Dinner" and "room for pie"
- Small bowel (duodenum, jejunem, iliem)extracts nutrients, sends residual waste through ileocecal valve to colon
- Colon's job is to retrieve, save, "recycle" water and electrolytes from liquidy waste from small bowel
- Through peristalsis colon pushes increasingly more solid stool forward through ascending, transverse and descending colon

Let's Go! Constipation, Diarrhea and Nutritional Support

Magical Sigmoid Valve

- Stool accumulates at folded, simple valve of sigmoid colon; water continues to be extracted
- When filled with enough formed stool, peristalsis pushes the stool forward, opening this simple valve and stool progresses through to the rectum to be expelled through the anus
- If hard stool arrives at sigmoid valve, may cause it to get stuck partially open resulting in liquidy stool flowing around the high-level fecal impaction which just gets harder

"Stercle ulcer"

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Let's Go! Constipation, Diarrhea and Nutritional Support

Constipation

- What is constipation and how does it happen
- Why do we care
- What can we do about it
- Constipation can be defined as the condition of hard stools that are difficult to expel, often the result of the colon extracting too much water

Let's Go! Constipation, Diarrhea and Nutritional Support

- Affects 50-75% of elders
- Primary contributor to:
  - Anorexia, sarcopenia, Weight loss
  - Anemia if associated with GI blood loss
  - Abdominal pain and discomfort
  - Dehydration, Urinary retention
  - SOB, Increased risk of reflux and aspiration
  - Subacute or acute delirium
  - Decline in nutritional status and tissue integrity
    - Increase in wounds, decline in immunity, incr illness
  - May lead to fecal impaction or trigger weight loss quality indicators and become a survey issue

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Let's Go! Constipation, Diarrhea and Nutritional Support

Causes of constipation:

- Normal physiologic aging with decreased colonic transit
- Decreased physical activity
- Decreased fluid and fiber intake
- Dairy products, Caffeine, Alcohol
- Acute and Chronic

Let's Go! Constipation, Diarrhea and Nutritional Support

Medications:

- Narcotic/opioid pain drugs including codeine, morphine, hydrocodone, oxycodone, and hydromorphone
  - Opioid use has a 90% chance for causing constipation
- Antidepressants-amitriptyline and imipramine
- Anticonvulsants-phenytoin/Dilantin and carbamazepine / Tegretol
- Calcium channel blocking drugs-diltiazem and nifedipine
- Aluminum-containing oral antacids
- Diuretics including furosemide (Lasix), metolazone

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Let's Go! Constipation, Diarrhea and Nutritional Support

Multiple Medical conditions:

- Neurologic-MS, Parkinson's disease, CVA/stroke, spinal cord injuries, Hirschsprung disease, Ogilvie's, neuropathic bowel
- Endocrine and metabolic conditions - uremia, diabetes, hypercalcemia, hypothyroidism
- Systemic diseases - amyloidosis, SLE, scleroderma
- Colonic conditions-Colon cancer with obstructing lesions, Diverticulosis/itis, Inflammatory bowel disease, Scar tissue or adhesions, radiation proctitis, colorectal stricture

Let's Go! Constipation, Diarrhea and Nutritional Support

Treatment of constipation:

- Understand and address the underlying cause(s)
- Ensure adequate fluid intake with awareness of risk of heart failure in at-risk elders
- Adequate dietary fiber
- Adequate exercise
- Adequate toileting time
  - Staffing and staff time
  - Patient awareness of need to toilet
- Adequate bowel care!

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Let's Go! Constipation, Diarrhea and Nutritional Support

Bowel Care Medications:

- Stool softeners-Colace/DSS/DOK
- Stimulants - Dulcolax (PO/PR), Senokot
- Lubricants - mineral oil and Fleet's enemas
- Fiber/bulk supplements -Metamucil, Citrucel-absolutely require adequate fluid intake in elderly pts to avoid fiber blockages
- Osmotics-increase fluids in the colon-Sorbitol, lactulose, Miralax.
- Saline laxatives-increase fluids in the colon-MOM

Let's Go! Constipation, Diarrhea and Nutritional Support

Constipation-Special Concerns

Amitiza-

- CIC-2 Chloride channel activator
- For severe constipation with opiate use, must take with food

Linzess-

- Guanylate cyclase C activator which stimulates cGMP production
- For more painful abdomen, especially IBS; useful in neuropathic bowel cases; decreases visceral sensitivity while increasing fluid secretion into lumen of large bowel

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Let's Go! Constipation, Diarrhea and Nutritional Support

Recommend:

- Communication with entire team is key
- Recruit nursing and the CNAs to monitor bowel care closely; include dietician
- Directly monitor weights and bowel care records
- Utilize stool softener and laxative together
- Usually avoid fiber laxatives in older, frailer elders
- Provide bowel care orders on all patients
- Empower staff to utilize PRN bowel care:
  "QD PRN no BM x 1 day" with multiple options for treatment

Let's Go! Constipation, Diarrhea and Nutritional Support

Suggestions for starting doses:

- Senokot 1 tab PO BID
- DSS/DOK 250mg PO QD
- MOM 30 cc PO QD RN no BM x 1 day
- Dulcolax supp 1 PR QD PRN no BM x 1 day if MOM ineffective; may repeat x 1 if no results
- Fleets mineral oil enema 1 PR QD PRN no BM x 1 day if Dulcolax supp ineffective, MR x 1
- Monitor frequency of PRN bowel care use and increase scheduled bowel care
- ALWAYS order 1 PRN Senokot to be given with each PRN opioid dose

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Let's Go! Constipation, Diarrhea and Nutritional Support

Diarrhea
- What is diarrhea?
- Why do we care?
- What can we do about it?

Diarrhea is the occurrence of loose watery stools and often increased frequency of stools; it may be acute or chronic; important to clarify if blood is present:
- Acute or Short Duration: Diarrhea that lasts 1 or 2 days and then resolves; ex: food poisoning, bacterial, viral or parasitic gastroenteritis
  - Short duration watery diarrhea-cholera
  - Short duration bloody diarrhea-dysentary
- Chronic: Diarrhea that occurs over days to several weeks; possibly related to a chronic medical condition such as IBS/irritable bowel syndrome, inflammatory bowel disease such as Crohn's disease, Ulcerative colitis, or celiac disease, resistant clostridium difficile, internal parasites, hyperthyroidism, lactose intolerance

Let's Go! Constipation, Diarrhea and Nutritional Supp

Causes of Diarrhea
- Bacterial, viral or parasitic infection; ex norovirus, highly contagious
- Problems with digestion or food allergies such as celiac disease, gluten allergy
- Reaction to institutional diet item or water source
- Medication reaction
- HIV/AIDS-associated diarrhea
- Inflammatory bowel disease such as Crohn's or Ulcerative colitis
- Functional bowel disorder, such as irritable bowel syndrome
- GI surgery: gastrectomy/colectomy/cholescystectomy/bariatric
- Antibiotic use resulting in C. diff with possible progression to VRE
- Bowel ischemia or infarction with ischemic colitis
- Microscopic colitis
- Metabolic conditions: hyperthroidism
- Radiation proctitis or other GI tract pathology after radiation
- Cancers with excess hormone production
- Traveler's diarrhea from food or water contaminated with virus, bacteria, parasites, and even food poisoning.

Let's Go! Constipation, Diarrhea and Nutritional Support

Diarrhea can cause significant problems and patient discomfort

Depending on the cause and duration, significant pathology can result, including buttock excoriation and wounds, impact nutrition and protein stores, lead to dehydration and weight loss

Some infectious causes such as norovirus spread quickly, important in an institutional setting

Symptoms of diarrhea:

- Abdominal cramping, stomach pain, bloating
- Upset stomach/nausea
- Frequent/urgent need to pass watery loose stools
- Fever
- Bloody stools/hematochezia
- Dehydration/thirst
- Leaking stool and fecal incontinence

Let's Go! Constipation, Diarrhea and Nutritional Support

Diarrhea- Special LTC Concerns and Treatment:

- Determine etiology-recurrence of a previous problem or something new?
  - Are other residents ill? Food-related, contagious viral gastroenteritis or bacterial spread
- Check the NNT! "Nursing Nose Test"
- Send specimen for stool workup: C. diff, fecal leukocytes, hemoccult; consider norovirus Ab/Ag, stool for GS and cx, O&P
- Check rectal exam and consider high level fecal impaction

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Let's Go! Constipation, Diarrhea and Nutritional Support

Diarrhea- Special LTC Concerns and Treatment:

- Caution with imodium or lomotil use if infectious cause suspected until causative agent identified
  - Pepto-Bismol safe and effective
  - Cholestyramine also effective
- Consider placing patient on isolation in the interim
- Pay close attention to pt's nutrition and hydration
- Monitor pt's skin and nutrition status closely
  - Buttock wounds a large risk which will further deplete pt's protein stores due to replacing and healing damaged tissue
  - 50 % mortality from serum albumin less than 2.0

Let's Go! Constipation, Diarrhea and Nutritional Support

Especially for pts with marked weight loss or nutritional decline:

Depending on the cause and duration, significant pathology can result, including buttock excoriation and wounds, impact nutrition and protein stores, lead to dehydration and weight loss

Some infectious causes such as norovirus spread quickly, important in an institutional setting

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Let's Go! Constipation, Diarrhea and Nutritional Support

- Treat associated symptoms for pt stability and comfort : nausea, fever
- IVF may be warranted

Let's Go! Constipation, Diarrhea and Nutritional Support

- If C diff is suspected:
  - recommend extended use of flagyl before switching to vancomycin; can divide doses to give Q 4 hrs
  - may add cholestyramine (Questran) which can bind the

    C. diff toxin

    High protein diet needed to help maintain protein stores and bowel wall integrity
  - Include probiotics with every meal "Lactinex"
  - Quarantine or isolate pt to minimize spread;encourage staff to gown and glove

Let's Go! Constipation, Diarrhea and Nutritional Support

Nutritional support for LTC Elders:

- Normal physiologic changes result in decreased protein uptake from GI tract
- Albumin 2.0 or less carries a 50% mortality risk
- Monitor weight and albumin closely
- High-calorie, high protein diet or its equivalent
- Modify food and fluids for swallowing disorder but monitor for food or fluid refusal
  - May need to negotiate with pt and family if diet too restrictive and intake declines
- Discuss with team when pts need extra nutritional assistance
- Recruit and encourage staff to feed pt frequently including between meals if necessary and negotiate with staff re: the proposed solution

Let's Go! Constipation, Diarrhea and Nutritional Support

Nutritional support for LTC Elders:

- "Prime the pump" with nutritious snack or supplement 60-90 minutes before meals
- Consider 100-200 cc nutritional supplement Q 2-4 hrs while awake
- Negotiate and work with staff for nutritional solution

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Let's Go! Constipation, Diarrhea and Nutritional Support

In Summary:

- It has to come out before it can go in
- Collect the sample before cleaning up! "NNT"
- Don't photograph that fecal impaction until it's been cleared!
- Yogurt for everyone daily

Let's Go! Constipation, Diarrhea and Nutritional Support

Constipation:

- Can result in decline in nutritional status and tissue integrity
  - Increase in wounds, decline in immunity, increased illness
  - May lead to fecal impaction if not addressed or trigger weight loss quality indicators and become a survey issue
- Bowel Care for all Patients even if just PRN
- Schedule PRN bowel care for "QD PRN no BM x 1 day"
- Communication with team staff is key!

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Let's Go! Constipation, Diarrhea and Nutritional Support

Diarrhea:

Significant pathology can result, including buttock excoriation and wounds, impact nutrition and protein stores, lead to dehydration and weight loss

Some infectious causes such as norovirus spread quickly, important in an institutional setting

Caution with initial treatment and consider PeptoBismol for sx relief until infectious etiology ruled out

Monitor closely with team for weight loss and dehydration

Let's Go! Constipation, Diarrhea and Nutritional Support

Nutritional support for LTC Elders:

- Remember to "Prime the pump" with nutritious snack or supplement 60-90 minutes before meals
- Consider 100-200 cc nutritional supplement Q 2-4 hrs while awake
- Negotiate and work with staff for nutritional solution

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Safety and Dementia Care
Karen M. Wall Ed.D., PMHRN-BC, BSN, LMFT
Memory/Dementia Care Coordinator- Extended Care Service/CLC
Certified PMDB Facility Trainer
Certified Teepa Snow PAC Coach
VA Palo Alto HCS-Menlo Park Division
CALTCM 2017

Speaker Disclosure Statement

Ms. Wall has no relevant financial relationships with commercial interests to disclose.

OBJECTIVES

- Using a risk assessment tool, determine the level of potential risk to others and from others based on risk factors (behavior, disease process, mental illness)
- List "activators" for agitation and/or aggression in patients with dementia
- List at least 4 therapeutic interventions/adaptations for maintaining a safe care environment for patients with dementia

EMPATHY

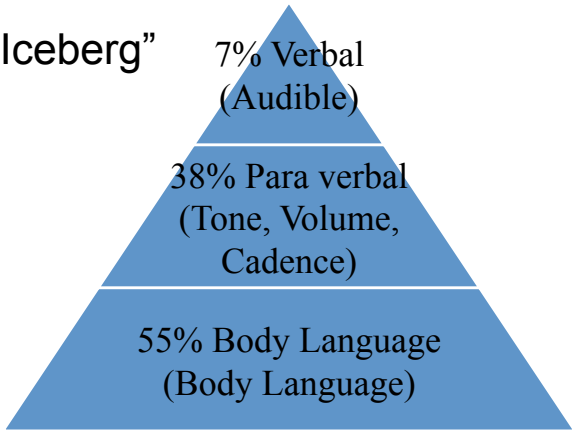
- "A social and emotional skill that helps us feel and understand the emotions, circumstances, intentions, thoughts, and needs of others, such that we can offer sensitive, perceptive, and appropriate communication and support"
  - (McLaren, K., 2013, p.4)

4 Characteristics of Dementia

- Global impairment: deficits in more than just memory (language, planning, decision making, movement, etc.)
  - ACTIVATOR: correcting, arguing, defensiveness
- Decline in functioning over time: (keep track of changes to help with planning treatment)
  - ACTIVATOR: imposing personal unrealistic expectations
- Severity of impairment: unable to live alone; get lost or disoriented; unable to manage daily tasks
  - ACTIVATOR: impatience, too complicated
- Normal consciousness: Confused, but awake and alert (most difficult to identify)
  - ACTIVATOR: assuming understanding but just acting out

How We Communicate

"The Iceberg"



Sample Safety Assessment

ASSAULT/THREAT RISK ASSESSMENT:

(Medical Provider) **Initial:** **Date:**

RISK ASSESSMENT KEY	
RISK OF BEING ASSAULTIVE OR THREATENING TO OTHER RESIDENTS	**RISK OF BEING ASSAULTED OR THREATENED BY OTHER RESIDENTS**
A. Assaultive or threatening to other residents in the last 12 months	**A**. Assaulted or threatened in the last 12 months
B. History greater than 12 months: repeated assaultive or threatening behaviors, violent crime, history of physical abuse (either victim or abuser), etc.	**B**. History greater than 12 months: victim of violent crime, assault, physical abuse, etc.
C. Mental Health/Substance Abuse Diagnosis *(list diagnoses)*	**C**. Mental Health/Substance Abuse Diagnosis *(list diagnoses)*
D. Major Neurocognitive Disorder*(list diagnoses)*	**D**. Major Neurocognitive Disorder*(list diagnoses)*
E. Baseline symptom acuity or other clinical factors: psychotic, impulsive, low frustration tolerance, med-noncompliant, etc. *(list)*	**E**. Baseline Symptom Acuity or other clinical factors: intrusive, impulsive, wandering, disruptive, etc. *(list)*
F. Mitigating Factors: limitations that may reduce the overall risk level of being assaultive or threatening (paralysis, bed-bound, contractures, etc.).	**F**. Mitigating Factors: limitations that may reduce the overall risk level of being assaulted or threatened (isolative, bed-bound in a private room, etc.)
RISK LEVEL: LOW/MODERATE/HIGH	**RISK LEVEL:** LOW/MODERATE/HIGH
HIGH: A or any 3 of B, C, D, or E	**HIGH: A** or any 3 of B, C, D, or E
MODERATE: Any 2 of B, C, D, or E	**MODERATE:** Any 2 of B, C, D, or E
LOW: Any 1 of B, C, D, E or none	**LOW:** Any 1 of B, C, D, E or none

RISK OF BEING ASSAULTIVE OR THREATENING TO OTHER RESIDENTS	**RISK OF BEING ASSAULTED OR THREATENED BY OTHER RESIDENTS**
A.	A.
B.	B.
C.	C.
D.	D.
E.	E.
F.	
RISK LEVEL: HIGH	**RISK LEVEL: HIGH**
Behavioral Indicators of Increasing Risk:	Behavioral Indicators of Increasing Risk:
Non-pharmacologic and pharmacological interventions to reduce assault risk:	Non-pharmacologic and pharmacological interventions to reduce risk of being assaulted:

RISK OF BEING ASSAULTIVE OR THREATENING TO STAFF:
Behavior(s):
Behavioral Indicators of Increasing Risk:
Non-pharmacologic and pharmacological interventions:

Caring for Residents with Dementia

- Follow a set routine and follow the routine the patient follows at home when possible.
- Don't rush! Allow additional time for communication and task performance.
- When communicating, keep instructions simple and break complex instructions into single steps.
- Reduce distractions to help patients focus their attention.
- Distract patients by changing the subject or offering a snack.

Landers, 2012, p.33

Caring for Residents with Dementia

- Don't argue or try to correct patients. If they're delusional, allow them to think they're right. Arguing or correcting may produce agitation and aggression.
- Be flexible! Individualize your care to the patient instead of having the patient follow your guidelines.
- Be careful with giving as-needed medications to reduce agitation. Many medications, especially benzodiazepines, can actually increase agitation by causing delirium.
- Behavioral interventions work best.

Landers, 2012, p.33

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Being Proactive

- Know what to look for/anticipate/plan
- Simple limits/instructions/break into small parts
- Note time of day and ask nursing to medicate beforehand (especially with sundowning)
- PO and fluid intake important
- Avoid large groups/enclosed spaces
- Exercise/outdoors/sunlight
- Check medications for possible side effects (EPS, Paradoxical, sedation, NMS, etc.)
- Staff attitude/presence

Therapeutic Adaptations

- Be aware of your surroundings at all times
- Decrease stimulus/low and calm voice
- Modify routines with progression
- Family presence as much as possible (bring family dog if allowed)
- Reminiscing, storytelling, humor, music, art

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QUESTIONS??


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Promoting quality patient care through medical leadership and education
Just Culture & Patient Safety Case Studies
Denise Rettenmaier, DO & Maria Guzman, RN
CALTCM 2017

Speaker Disclosure Statement

Dr. Rettenmaier has no relevant financial relationships with commercial interests to disclose.

Ms. Guzman has no relevant financial relationships with commercial interests to disclose.

Just Culture and Patient Safety Staff Challenges in LTC

Round table Discussions:
Challenging Patient Cases from Staff's Perspective

- Introduction
- Interviews:
  - Sherry SRN
  - Linda SW
  - Rebecca Dietician
  - Cathy OT
  - William CNA
  - Julie Ward Clerk

Just Culture and Patient Safety Staff Challenges in LTC

As Providers, supporting our staff is important in many ways:

- Builds team cooperation and trust
- Boosts morale
- Results in improved patient care
- Self preservation!

Just Culture and Patient Safety Staff Challenges in LTC

As Providers, ways to demonstrate that support:

- Be available to all of your staff for whatever they need to bring to you
- Listen to their concerns, observations, suggestions
- Be protective “have their back”
- Be sensitive about what you are asking of staff and be willing to negotiate
- Express your gratitude, compliment your staff, let them know you appreciate their work, dedication and intelligence
- Treat them as colleagues; pay attention to them and their lives
- Explain what and why you are doing what you’re doing-teach on the job
- Say thank you-a lot

Remember:

- Asking for excellence starts by striving to provide excellence yourself
- Staff education!

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Just Culture and Patient Safety Staff Challenges in LTC

From Staff:

- Listen to our concerns
- Treat us with respect-see us for who we really are
- Be available--Call us back!
- Explain the whys of what you are doing for patients-it helps us understand and motivates us to do our best
- The more we know the better our patient care becomes
- Help us to be more aware of everything about the patient's situation
- Help us improve our assessments and critical thinking so we can provide the best information
- Help us to think about the whole picture
- Teach us-we want to learn!
- We too need to ask ourselves "why and why now?"

Just Culture and Patient Safety Staff Challenges in LTC

From Staff:

Why and Why Now?

- For example: A patient with a fever:
  - Help us learn to do more than just call for a Tylenol order:
  - Review the chart
  - Have the labs ready
  - Check pt's bowel care, urination, food and fluid intake
  - Think about why the patient has a fever –source of infection:
  - Lesions or other skin problems
  - Check if other patients are ill
- Cough? Earache? Diarrhea?
  - Always consider: Discomfort? Pain?

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Just Culture and Patient Safety Staff Challenges in LT

Patient Cases

- Patient Description
- Issues of Concern especially from the Staff's perspective:
  - Challenges of Caring for this Patient
  - Barriers to providing care for this Patient
  - What feelings might the staff have about this patient and this situation?
  - How to Protect the Patient and the Staff
  - IDT/Plan of Action

Patient Cases

- Cultural Conflict
- Falls
- Dementia Care
- Constipation/Diarrhea
- Anticoagulation

Joint Discussion

Just Culture and Patient Safety Staff Challenges in LTC

Cultural Conflict

- Mr. G
- 80 yo European-American man with extensive history of vascular and alcohol related dementia; short-term memory of 1-2 days relatively preserved. Lifelong history of personality disorder and antisocial behavior; estranged from family. Multiple medical problems including severe trigeminal neuralgia with frequent attacks, parotid gland mass, HTN, HLP, ASVD, large bilateral inguinal hernias, CVA with residual rt-sided hemiparesis, known to use racial slurs, ridicule and negative comments when dealing with staff daily and throughout the day.
- Issues of Concern
- IDT/Plan of Action

Just Culture and Patient Safety Staff Challenges in LTC

Falls

- Mr. T
- 67 yo European-American man with severe progressive Parkinsons Disease, severe dysphagia, autonomic dysfunction and emerging PD dementia well-known to facility and surrounding community due to multiple events and misadventures involving falls and freezing episodes. Pt fearlessly rode a bicycle for years when living independently. Now a dementia care patient, he still attempts to walk and falls almost daily with several occurrences of head trauma. Displays poor judgement, poor safety awareness and disinhibition. Management is wanting his alarm belt discontinued.
- Issues of Concern
- IDT/Plan of Action

Just Culture and Patient Safety Staff Challenges in LTC

Dementia Care

- Mrs. W
- 87 yo European –American woman with progressive Alzheimer's and Lewy Body dementia. Probable lifelong personality disorder; her only relatives are her nephew and his wife. Known to be foul-mouthed and "mean" with increasing episodes of nearly uncontrollable aggressive behavior: striking out at staff, injuring staff by twisting their fingers and thumbs, throwing water pitchers and waste. Two staff on light duty for an extended period. Ambulatory, she constantly seeks to exit the dementia unit.
- Issues of Concern
- IDT/Plan of Action

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Just Culture and Patient Safety
Staff Challenges in LTC

Constipation/Diarrhea

- Mr. D
- 83 yo LA man with recurrent aspiration PNA acquired C. diff after extended antibiotic course while at outside hospital known to have C. diff outbreak that is very resistant. Pt on multiple courses of Flagyl and Questran with modest improvement but the diarrhea caused several areas of buttock breakdown and the illness itself has led to anorexia; recent albumin is 1.2.
- Issues of Concern
- IDT/Plan of Action

Just Culture and Patient Safety
Staff Challenges in LTC

Anticoagulation

- Mrs. B
- 76 yo AfA woman with distant history of bilateral leg fractures r/t MVA s/p ORIF, gait disorder, wheelchair dependent, with Afib, CAD, HTN, HLP on Coumadin. PMD checks INR weekly which has been stable. Less than a week ago, she was seen by new cardiologist who started Amiodarone and in 4-5 days she presents with a large swollen tender knee.
- Issues of Concern
- IDT/Plan of Action

Final Thoughts

- Patient Happy
- Family Happy
- Staff Happy
- Doctor Happy

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PA/LTC Update #3:

Spring 2017 Policy & Regulatory Summary

Karl Steinberg, MD, CMD, HMDC

CALTCM 2017

Speaker Disclosure Statement

Karl Steinberg, MD receives honorarium for his role in the:

- Boehringer Ingelheim non-branded Speakers Bureau for Transitions of Care presentations
- Sunovion Scientific Advisory Board

All conflicts of interest have been resolved in accordance with the ACCME's Standards for Commercial Support.

Objectives

- Discuss policy and regulatory issues that impact the PA/LTC professional
- Appreciate the changes to CMS' (2016) LTC Requirements of Participation and how they will be phased in
- Incorporate the six new (2016) Quality Measures into efforts to improve care in your facilities
- Utilize appropriate CPT codes for Advance Care Planning

Top Policy Issues in PA/LTC

- SNF Requirements of Participation
- IMPACT Act
- SNF Value-Based Purchasing
- 5-Star Rating Changes
- Payroll-Based Journal
- PA/LTC as a specialty
- MACRA Implementation
  - QPP, MIPS, (A)APMs

The Mega-Rule

Reform of Requirements of Participation for Long-Term Care Facilities (CMS-3260-F; RIN 0938-AR61)

The Mega-Rule

- First revision since OBRA '87 (42CFR§483)
- Proposed Rule (400+ pages) published summer 2015
- About 10,000 comments submitted to CMS
- AMDA wrote 134-page comment letter
  - CMS listened to many of the comments
    - With variable results
- Final Rule (600+ pages) published Oct. 2016
  - New sections, some content moved (e.g., meds to pharmacy)
  - New Guidance to Surveyors and F-Tags forthcoming (11/28/17)

Reform of Requirements for Long Term Care Facilities: Centers for Medicare and Medicaid Services. Federal Register / Vol. 80, No. 136 / Thursday, July 16, 2015 / Proposed Rules

Major Focus Areas of New RoPs

- General Update, Implement ACA provisions
- Ensure proper training & competencies including Dementia, Elder Abuse, Person-Centered Care
- Care Plans within 48 hours of admission
- Pharmacy review and service changes
- QAPI (Quality Assurance/Performance Improvement)

Cost Estimates (Unfunded)

TABLE 5—SECTION BY SECTION SUMMARY OF ESTIMATED COST FROM ICR AND RIA TO COMPLY WITH THE REQUIREMENTS CONTAINED IN THIS FINAL RULE

Regulatory section	Number of affected entities	Total 1st year cost to all LTC facilities ($ millions)	Total recurring annual cost to all LTC facilities ($ millions)	Estimated recurring annual cost per facility (rounded to the nearest $)
Resident Rights (§ 483.10)	15,653	$166.87	$166.35	$10,627
Admission, Discharge, and Transfer Rights (§ 483.15)	15,653	2.95	2.95	188
Comprehensive Resident Centered Care Planning (§ 483.21)	15,653	86.36	86.36	5,517
Nursing Services (§ 483.35)	15,653	3.88	3.88	248
Food and Nutrition Services (§ 483.60)	15,653	1.85	1.85	118
QAPI (§ 483.75)	15,653	125.47	50.15	3,204
Infection Control (§ 483.80)	15,653	297.91	297.91	19,032
Compliance and Ethics Program	7,314 (operating organizations).	134.79	114.98	15,721
Training (§ 483.95)	15,653	11.46	11.46	732
Total		831.35	735.90	55,388

CALTCM 2017 Quality Through Best Practices

Themes of the New RoPs

- **Person-Centered Care**
- **Quality**
- **Facility Assessment, Competency-Based Approach****
- **Alignment with HHS priorities**
- **Comprehensive Review and Modernization**
- **Implementation of Legislation**

**Apparently for everyone except medical directors, other physicians and NP/PA/CNS (comment added)

From MLN Connects National Provider Call, 10.27.16

CMS Final Requirements of Participation

- Released online 9/28/2016
- 713 pages
- Combination of new requirements & reorganization
- Three phase implementation
  - Phase 1 – November 28, 2016
  - Phase 2 – November 28, 2017
  - Phase 3 – November 28, 2019

Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities 10/4/2016
https://www.federalregister.gov/documents/2016/10/04/2016-23503/medicare-and-medicaid-programs-reform-of-requirements-for-long-term-care-facilities

Sections of New RoPs

- Basis & Scope(§483.1)
- Definitions (§483.5)
- Resident Rights (§483.10)
- Abuse & neglect, (§483.12)
- Admission, transfer, and discharge rights (§483.15)
- Resident assessment (§483.20)
- Comprehensive person centered Care planning (§483.21)
- Quality of life (§483.24)
- Quality of care §483.25)
- Physician services (§483.30)
- Nursing services (§483.35)
- Behavioral health services (§483.40)
- Pharmacy services (§483.45)
- Laboratory, radiology, and other diagnostic services (§483.50)
- Dental services (§483.55)
- Food & nutrition services (§483.60)
- Specialized rehabilitative services (§483.65)
- Administration (§483.70)
- Quality assurance and performance improvement (§483.75)
- Infection control (§483.80)
- Compliance and ethics (§483.85)
- Physical environment (§483.90)
- Training requirements (§483.95)

Red = New or Rewritten Sections

New Definitions in Mega-Rule

- "abuse"
- "adverse event"
- "exploitation"
- "misappropriation of resident property"
- "mistreatment"
- "neglect"
- "**person-centered care**"
- "**resident representative**"
- "sexual abuse"

Arbitration Agreements

- Final Rule included prohibition of all pre-litigation arbitration agreements
- Legal challenge by AHCA
- Emergency injunction granted November 2016—agreements still OK for now
  - Case will be heard for ultimate decision on this
- *Issues: Capacity to enter into agreements, family members signing for resident*

Regulations Removed from Proposed Rule

Physician Services

- *Not included* – requirement of face-to-face practitioner visit before acute care transfers "except emergencies"
  - In proposed rule
  - Landslide disapproval in comments
    - Countless valid reasons cited
  - CMS "not to finalize this requirement at this time"
- *Not Included* – required credentialing section withdrawn
  - Under the rubric of "resident choice"

Regulations Removed from Proposed Rule

Infection Prevention Control Officer—now just infx preventionist

Prohibition on prn medications longer than 48 hours— extended to 14 days in accordance with AMDA request

[Minimum staffing (e.g., 4.1 nursing hours per resident day, or 24-hour RN mandate)—*not in proposed rule, but many comments favoring them. Did not make it into final rule (yet).]*

Phased Implementation

Phase 1—began on November 28, 2016

Phase 2—begins November 28, 2017

Phase 3—begins November 28, 2019

AHCA has a nice "playbook" available online

AMDA is working on a document that will show what portion of the new RoPs relate to medical director and attending physician/practitioner duties, available later this year

Phased Implementation

RequirED

Section	Phase	Page #	Necessary Action
§483.1 Basis and scope.	Phase 1 This entire section will be implemented in Phase 1.	68848	

CMS Summary: We have added the statutory authority citations for sections 1128I(b) and (c) and section 1150B of the Social Security Act (the Act) to include the compliance and ethics program, quality assurance and performance improvement (QAPI), and reporting of suspicion of a crime requirements to this section.

Section	Phase	Page #	Necessary Action
§483.5 Definitions.	Phase 1 This entire section will be implemented in Phase 1.	68848	☐ Familiarize staff at all levels of the organization with these terms ☐ Modify language to include resident representative

CMS Summary:
We have added the definitions for "abuse", "adverse event", "exploitation", "misappropriation of resident property", "mistreatment", "neglect", "person-centered care", "resident representative", and "sexual abuse" to this section.

Section	Phase	Page #	Necessary Action
§483.10 Resident rights.	Phase 1 The section will be implemented in Phase 1 with the following exception:	68849	☐ Review and modify language in P&P related to Advance directives §483.10(b)(8) ☐ Develop P&P related to Grievance policy (new) ☐ Identify a "grievance official" who oversees the process ☐ Establish a process for responding to grievances by family and or residents

AHCA NCAL IMPROVING LIVES by DELIVERING SOLUTIONS for QUALITY CARE

Phased Implementation

Phase	Primary Implementation
Phase 1 *(* this section is partially implemented in Phase 2 and/or 3)*	• Resident Rights and Facility Responsibilities* • Freedom from Abuse Neglect and Exploitation* • Admission, Transfer and Discharge* • Resident Assessment • Comprehensive, Person-Centered Care Planning* • Quality of Life • Quality of Care* • Physician Services • Nursing Services* • Pharmacy Services* • Laboratory, radiology and other diagnostic services • Dental Services* • Food and Nutrition* • Specialized Rehabilitation • Administration (Facility Assessment – Phase 2)* • Quality Assurance and Performance Improvement* - QAA Committee • Infection Control – Program* • Physical Environment*

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CALTCM 2017 Quality Through Best Practices

Phase 1 Components

- Freedom from Abuse, resident rights and resident assessment
- Physician services
- Portions of QAPI
- Staff training: Dementia, Abuse, Feeding

Phase 1 re: Physician Services

Physician Services

- At the time of admission, "a physician, a physician assistant, a nurse practitioner, or a clinical nurse specialist must provide orders for the resident's immediate care and needs"
  - Allows physician, NP, PA, and CNS to provide admission orders
  - Also explicitly allows them to order labs, imaging, other dx

Phase 1 re: Physician Services

Physician Services

- Physicians may delegate authority to write dietary orders
  - Can't be performed by NP/PA/CNS, only dietitian
  - Opt-in: **Not required** to delegate this
- Physicians may delegate authority to write therapy orders
  - Can't be performed by NP/PA/CNS, only rehab professional
  - Opt-in: **Not required** to delegate this
- AMDA recommended against these

Phased Implementation (continued)

Phase 2	• Behavioral Health Services* • Quality Assurance and Performance Improvement* - QAPI Plan • Infection Control – Facility Assessment and Antibiotic Stewardship ** • Compliance and Ethics* • Physical Environment- smoking policies *
Phase 3	• Quality Assurance and Performance Improvement* - Implementation of QAPI • Infection Control – Infection Control Preventionist * • Compliance and Ethics* • Physical Environment-call lights at resident bedside * • Training *

*This section is partially implemented in other phases

Phase 2 Requirements (Effective 11/28/17)

- Transfer/Discharge documentation
- Baseline care plan
- Initial QAPI plan
- Antibiotic Stewardship
- Behavioral health services
- New computer-based survey protocol (70% off-site, 30% on-site)
  - A hybrid of current process and QIS

Care Plan & IDT Changes

- Develop and implement a "baseline care plan" within 48 hours of admission (including weekends)
- Interdisciplinary team members: attending physician, RN, other appropriate staff, patient, and family/patient's representative. Plus: Adds the CNA and Dietary
- Need to have a good reason and documentation if resident and representative do not participate

48-Hour Care Plan Requirements

- Minimum of 6 key elements:
  - Initial goals based on admission orders
  - All physician orders, including medications and administration schedule
  - Dietary orders
  - Therapy services
  - Social services
  - PASARR recommendations, if PASARR completed
- Could be replaced by the comprehensive care plan if done within 48 hours of admission

Quality of Care and Quality of Life

- Quality of Life & Quality of Care
  - Additional special care issues: restraints, pain management, bowel incontinence, dialysis services,and trauma-informed care
- Quality Assurance and Performance Improvement
  - Will be mandatory, but not all QI needs to be QAPI

Resources available -
http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/nhqapi.html

From MLN Connects National Provider Call, 10.27.16

Competency-Based Approach

Facilities need to know themselves, their staff, and their residents.

- Not a one-size-fits-all approach.
- Accounts for and allows for diversity in populations and facilities.
- Focus on each resident achieving their highest practicable physical, mental, and psychosocial well-being.
- [They did not mandate minimum staffing requirements (NHPPD)
  - Continues to be "sufficient to meet the needs"] [content added]
- Annual Facility (Self-)Assessment must be done starting 2017.

From MLN Connects National Provider Call, 10.27.16

Behavioral Health Services

- "Behavioral health encompasses a resident's whole emotional and mental well-being, which includes, but is not limited to, the prevention and treatment of mental and substance use disorders."
- "[t]he facility must provide physical, medically-related social services to attain or maintain the highest practicable mental and psychosocial well-being of each resident."

Pharmacy Services

- Review medical record at least every 6 months, upon admission, transfer, use of psychotropic, antibiotic or drug identified by QAA
- Report medication irregularities to the medical director (in addition to attending and DON)
- Monthly drug regimen review (DRR) to include review of medical record

Psychotropic Medications

- Antipsychotic
- Antidepressant
- Anti-anxiety
- Hypnotic
- CMS elected not to add opioids (AMDA request) (they were included in the proposed rule)
- Survey teams will focus on "unnecessary" use of all of these categories (traditional definition)

Mostly Phase 3

Training Requirements (§483.95)

- Most of the new Training Requirements, including the requirement for developing, implementing, and maintaining an effective training program for all staff on specified topics and based upon the needs identified in the Facility Assessment, are **Phase III requirements**.
- Some training requirements must be implemented in Phase I:
  - Abuse, neglect and exploitation, including:
    - ✓ Activities that constitute abuse, neglect, exploitation, or misappropriation of property
    - ✓ Procedures for reporting same
    - ✓ Dementia management and resident abuse prevention
  - Required Nurse Aide Training—Retains existing and adds:
    - ✓ Dementia management training & resident abuse prevention
    - ✓ Care of the cognitively impaired
  - Training of feeding assistants

Quality Assurance and Performance Improvement

- Implement and maintain an effective, comprehensive, data-driven QAPI program
- Focuses on indicators of outcomes of care and quality of life
- Must present overall facility QAPI plan to State Agency no later than one year after effective date of regulation (November 2017)
- Must present evidence of ongoing QAPI on request

- *Issues around confidentiality/protection from liability – will plaintiffs' attorneys be able to get hold of this information, and get it into evidence?*

QAPI Program Feedback, Data Systems and Monitoring

- Feedback from direct care staff (yes, includes CNAs)
- Such feedback will be used to identify high risk, high volume problems and opportunities for improvement
- Adverse event monitoring

Performance Improvement Projects

- At least one project annually to focus on high-risk or problem prone areas
  - Surveyors will want to hear about it
- QA&A committee must consist of DON, medical director, three other staff (including administration), and infection preventionist

Other RoP Provisions

- Infection Prevention Control Program with a designated Infection Preventionist (no specified time commitment in final rule)
- Facility must notify ombudsman's office of ***every*** transfer and discharge regardless of reason (??)
  - Many locations now only doing it for unplanned discharges, check with local/county offices
- Requirements for replacement of dentures
- >120 beds, requires full-time social worker
- Beefed-up discharge planning

Free Webinar for AMDA members on the Mega-Rule:
http://www.paltc.org-events#event-2167

You may be feeling like this:

Advance Care Planning Codes

- Billable since 1/1/16
- 2 ACP codes - 99497 and 99498 – were activated
- CMS did not issue a national coverage decision
  - Individual insurers might not approve – but it appears nearly all do
  - Some insurers waiving copay
- Both codes require a face-to-face meeting with either the patient, family, or surrogate for "the explanation and discussion of advance directives such as standard forms (with the completion of such forms, when performed), by the physician or other qualified health professional."

Payroll Based Journal (PBJ)

Payroll Based Journal (PBJ)

- The ACA required facilities to do electronic reporting of staffing hours
- Started July 1, 2016
- Medical Director: Job Code 214
- Allows review of staffing level, turnover and tenure
- Applies to admin. tasks related to facility operations, QA&A, etc.
- Can also help with determining & ensuring Fair Market Value

Payroll Based Journal (PBJ)

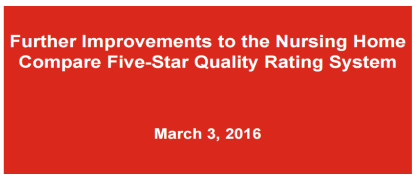
- Administrative time of medical director is counted
- Compensated Clinical time of medical director is not
- **Onsite and offsite time is counted (AMDA success)**
- Should be tied back to payroll, invoices, or a **contract stipulating hours**
  - Daily log sheets not required
  - Invoices are acceptable
  - Monthly summary sheets are acceptable

CALTCM 2017 Quality Through Best Practices

New Quality Measures

5-Star Changes

In April 2016, CMS began publicly reporting
<u>six</u> new quality measures (QMs) on Nursing Home Compare



https://www.cms.gov/medicare/provider-enrollment-and-certification/certificationandcomplianc/fsqrs.html

4 New Short-Stay Measures

Percent of Short-Stay Residents Who:

- successfully **discharged to the community** *(Claims-based)*
- had an outpatient **emergency department visit** *(Claims-based)*
- were **re-hospitalized** after a nursing home admission *(Claims-based)*
- made **improvements in function** *(MDS-based)*

- Admission to LTACH will not count
- A visit to a non-hospital-affiliated Urgent Care Center will not count

2 New Long-Stay Measures

Percent of Long-Stay Residents

- whose **ability to move independently worsened** *(MDS-based)*
- received an **antianxiety or hypnotic** medication *(MDS-based) [*on hold]*

5-Star Rating Changes

- Beginning in **July 2016,** five of the six measures will be used in the calculation of 5-Star Quality Rating QM ratings.
  - **Antianxiety/hypnotics not be used in 5 –Star**
    - specificity and appropriate thresholds concerns
- **Proposed Benefits**
  - Increase the number of short-stay measures
  - Cover important domains not covered by other measures
  - Claims-based measures may be more accurate than facility-reported measures.

Rehospitalization Consequences for SNFs

- SNF VBP authorized in PAMA 2014
- 2% withholding of all SNFs' Medicare payments
- SNF 30-day all-cause rehospitalization will be compared to facility's own benchmark (improvement), and compared to national aggregate benchmark (achievement)
  - Quarterly facility performance available now (since 2016)
- Will be adjusted to exclude planned readmissions in the future (only potentially preventable readmissions)
- Risk-adjusted
- Includes readmissions after patient dc'ed from SNF
- 50-70% of funds to be distributed to SNFs based on performance, starting in FY 2019

THANK YOU!

Poster Session: Titles and Authors

Poster Title	Author(s)
1. The Impact of Pharmacist Interventions in Post-Fall Evaluation of Older Adults Living in a Skilled Nursing Facility	Elizabeth Akhparyan, Mariam Khachatryan, Pharm.D., Robert Shmaeff, RPh, Rick Smith, MD, Janice Hoffman, Pharm.D., CGP, FASCP; Western University of Health Sciences, Los Angeles Jewish Home for the Aging
2. Revolutionizing Institutional Knowledge Storage and Transfer through an Innovative use of a Policy Software —Policy Tech	Valerie Barrington, Merlyn Trinidad, RN, Rebecca Ferrini, MD, MPH
3. Psychotropic Medication Use Reduction through Use of Non-Pharmacological Approaches in the Community Living Center	Kimberlee Chiavola, Leanne Richardson, Paul Anders, Timothy Kefauver, Joseph Jessen, Elisabeth M. Sethi; Martinsburg VA Medical Center, WV
4. The Intersection of Privacy and Decision-Making Capacity: Who Says Who Can Say What and When?	Robert M. Gibson, PhD, JD, Edgemoor D/P SNF
5. Power of POLST: QAPI Toolkit Field Test to Support Quality POLST Utilization in Skilled Nursing Facilities	Chris Knutson, RN, MSN, Ryan Hazley, BSN, RN, Karl Steinberg, MD; *The Coalition for Compassionate Care of California; San Diego Coalition for Compassionate Care*
6. Delivering Quality Palliative and End of Life Care in the LTC Setting	Linda Healy, MSN, FNP, GNP, ACHPN, Motion Picture & Television Fund
7. Impact of a Pharmacist-Led Antibiotic Stewardship Program on Management of Urinary Tract Infections in Nursing Home Residents	Mariam Khachatryan, Pharm.D., Robert Shmaeff, RPh, Rick Smith, MD, Janice Hoffman, Pharm.D., CGP, FASCP; Western University of Health Sciences, Los Angeles Jewish Home for the Aging
8. The Impact of a Consultant Pharmacist Interventions in the Very Old Living in a Skilled Nursing Facility	Caleb League, Pharm.D Candidate, Mariam Khachatryan, Pharm.D., Robert Shmaeff, RPh, Rick Smith, MD, Janice Hoffman, Pharm.D., CGP, FASCP; Western University of Health Sciences; Los Angeles Jewish Home for the Aging
9. Determine the Effectiveness of a Pharmacist Lead Antimicrobial Stewardship Program in Skilled Nursing Facilities	Monica Leriger, PharmD, CGP, Matthew F. Wack, MD, Lawrence W. Smith, MD, CMD, S. Christian Cheatham, PharmD
10. Words Matter	Sean Madison, Creekside Rehabilitation & Behavioral Health
11. Robocats/Robopups: Awakening the Isolated with Robotic Animals	Veronica McBride, MSW, Karla Shafer, RN, Rebecca Ferrini, MD
12. Use of the Ulnar Method for Height Determination	Thien Ngo, PT, Sang Mi Le, RN, Wendy Liu, RN, Merlyn Trinidad, RN, Sara Kim, RD, Katherine Trintchouk MD, Violeta Martel, MD, Rebecca Ferrini, MD
13. The Use of Renally-Dosed Medications on Beers List in the Elderly Living in a Skilled Nursing Facility	Meline Toutikian, Pharm.D. Candidate, Mariam Khachatryan, Pharm.D., Robert Shmaeff, RPh, Rick Smith, MD, Janice Hoffman, Pharm.D., CGP, FASCP; Western University of Health Sciences, Los Angeles Jewish Home for the Aging
14. Predictive Modeling Indicators of Hospital Readmissions for Patients with cognitive impairment Post-SNF discharged to Homes and Residential Care Facilities in Post-Acute Care setting	Andrew Wang, MD, Austin Wang, BA, Parag Agnihotri, MD; Sharp Extended Care, Sharp Health Care, Arbor Hills Skilled Nursing Rehabilitation Center, Generations Health Care
15. The Nursing Experience of Moral Distress and Impact on Quality of Care	Christine J. Wilson, RN, JD, CHCE, Tyler & Wilson / Creighton University

Poster Session: Author Biographies

Elizabeth Akhparyan

Elizabeth Akhparyan is an intern pharmacist at Calabasas Pharmacy and Healthcare, currently on her advanced pharmacy practice elective at Los Angeles, Jewish Home for the Aging. Elizabeth is also Past President of the American Geriatrics Society Western U Chapter, where her platform includes providing clinical support, safety, and medication communications for the aging population at assisted living facilities in the underserved areas and creating awareness through interdisciplinary guest lecture series at various campuses. Elizabeth actively serves on several professional committee, including SFV-CSHP and APhA-CPhA. Elizabeth received a B.S. degree in Biology from The University Of California, Los Angeles, in 2008. She is currently working towards a Doctor Of Pharmacy at WesternU, and is planning to graduate in May of 2017.

Kimberlee Chiavola

Kimberlee Chiavola currently serves as a Program Analyst for Geriatrics/ Long Term Care at the Martinsburg, West Virginia VA Medical Center. Kimberlee began her career as a student trainee at the West Palm Beach, FL VAMC in 2009. Throughout her time with the Department of Veterans Affairs she has held positions in the following departments: Medical Administration Service, Office of the Director, Office of the Chief of Staff, Mental Health, and Geriatrics/ Long Term Care. She has a B.S. in Organizational Management from Palm Beach Atlantic University in Palm Beach, Florida and is currently working towards a Master's Degree in Organizational Leadership. Prior to her career with the Department of Veterans Affairs Kimberlee was a teacher at a private school in West Palm Beach, FL. Kimberlee was raised in West Palm Beach, FL, where she enjoys the beach, watersports, vacationing and spending time with her family.

Rebecca Ferrini

Dr. Rebecca Ferrini MD MPH CMD is a full-time medical director for the county of San Diego 192 bed distinct part skilled nursing facility serving a younger, safety net population. She received the 2009 AMDA medical director of the year award and speaks and publishes in the area of decision-making capacity, Behavioral Management, Huntington disease and younger adults. She has specialty in hospice and palliative magazine and general preventive medicine. She has five children and plays competitive soccer.

Robert Gibson

Robert Gibson, Ph.D., J.D., is the psychologist at Edgemoor DP SNF, a 192 bed skilled nursing facility run by the County of San Diego. He is also licensed as an attorney. In addition to provision of psychological services and evaluations, Dr. Gibson has focused on a range of subjects including surrogate decision-making, assessment of decision-making capacity, the interplay between resident rights and the facility's duty of care, younger adults, and the management of criminals in long-term care.

Ryan Hazley

Ryan will be graduating this Spring with a Doctor of Nursing Practice degree from the University of San Diego. Her scholarly practice focused on the quality improvement of advance care planning utilizing POLST staff education in long term care. She is an active member of the San Diego Coalition for Compassionate Care as well as the state coalition (CCCC), and is a certified POLST Trainer. Ryan is employed as a System-wide Resource RN at Scripps Health meeting the healthcare needs of diverse populations across San Diego County.

Poster Session: Author Biographies

Linda Healy

Linda Healy has been an RN for over 30 years and holds 3 national certifications as a nurse practitioner. She received her Master's degree and certification as a Family Nurse Practitioner from the University of Southern California in 1997 and her post-Master's certification as a Gerontological Nurse Practitioner in 2003 from the University of California, Los Angeles. In 2004 she achieved certification as an Advanced Hospice and Palliative Care Nurse Practitioner through NBCHPN. Linda has worked at the Motion Picture & Television Fund since 2000 and is the Director of Palliative Care and Geriatric Services.

Mariam Khachatryan

Dr. Khachatryan received her Bachelor's Degree in Biology from University of California, Los Angeles in 2011 and her Doctorate in Pharmacy from Western University of Health Sciences (WesternU) in 2016. She is currently the PGY1 Pharmacy Resident at WesternU and The Los Angeles Jewish Home for the Aging. She is looking forward to expanding her training to better provide ambulatory care services to elderly patients. Her long-term career goal is to become a leader in the education of the next generation of pharmacists.

Caleb League

My Name is Caleb League and I am currently a 4th year pharmacy student at Western University of Health Sciences. I currently live in Ventura and plan on pursuing a career in community pharmacy. I previously graduated from UC Irvine with a degree in biology.

Monica Leriger

Monica Leriger is the district director of clinical pharmacy and lead for the antimicrobial stewardship at Kindred Nursing Homes in Indianapolis, Indiana. Drawing on her 15 years of experience in long-term care and pharmacy management, she provides antibiotic program strategies, clinical program evaluation and conflict resolution services to clients in the long-term care industry. Monica received her Doctor or Pharmacy degree from Butler University and is also a Certified Geriatric Pharmacist. Monica lives in Zionsville, Indiana with her husband, Andy and their four children. In her free time Monica enjoys visiting historic sites around the US with her family. Monica can be reached at mmleriger@gmail.com.

Sean Madison

Sean Madison moved west from New York City to the Bay Area with her standard poodle Shanti in tow in the late 70's. There she studied at the College of Marin and at San Francisco State University and pursued a career in the creative arts. Working with a multitude of mediums in leadership positions, ranging from production of music videos, to graphic design, and being the creative director for many holistic foods company. Sean moved from the city to the country and made her new home in Sebastopol, CA with Eowyn, an 80 pound black dog. With the ample space and commitment to her community Sean began to foster dogs and host Youth Exchange Students through Rotary from all around the world. This opened Sean up to the wide range of possibilities there are for how to move about and within the world, she gained entrance into a variety of new perceptions from this experience.

Sean adopted Eloise, a shitzu mut, when she starting to care give for her mother. This was Sean's first experience in a Skilled Nursing Facility, the lack of human intention that Sean witness was the catalyst for her new passion. For the past five years Sean has worked in many aspects of the Elder Care Profession to see where or how she could make a difference. Sean has developed EspoCare with the encouragement of her family, collages, friends, neighbors, and of course her dogs.

Poster Session: Author Biographies

Veronica McBride

Veronica McBride is a Mental Health Case Management Clinician for the County of San Diego, at Edgemoor Hospital DPSNF. Veronica has over 20 years of clinical experience in the field of Social Work. She obtained her bachelor's degree in Social Work from San Diego State University and her master's degree in Marriage, Family, and Child counseling from the University of Phoenix. In addition to her passion for helping people of all ages in case management, Veronica loves animals, cooking, swimming, and living a spiritual and prayerful life each day.

Thien Ngo

Thien Ngo is the supervising physical therapist at Edgemoor Hospital DPSNF located in Santee California. Thien has over 10 years of clinical experience in the field of physical therapy. He obtained his bachelor's degree in physiology and neuroscience from University of California San Diego in 2003 and his master's degree in physical therapy from California State University Northridge in 2006. In addition to his passion for helping people overcome their injuries, Thien enjoys traveling with his wife, watching movies, and playing sports, especially golf.

Meline Toutikian

My name is Meline Toutikian and I am a 4th year pharmacy student at Western University of Health Sciences. I am currently on my advanced elective rotation at The Jewish Home for the Aging located in Reseda, CA, where I am working on my research project, which I will be presenting at CALTCM. My previous achievements include receiving a Bachelor's in Psychology from California State University, Northridge.

Andrew Wang

Dr. Wang graduated from Taipei Medical University in 1982 and became a Navy medical officer for two years in Taiwan, ROC. He came to United State in 1984 and finished his residency of internal medicine at Lutheran Medical Center in Cleveland, Ohio 1989. He completed the fellowship of general internal medicine and geriatric medicine at Medical Center of University of California San Diego in 1991 and became board certified both internal medicine and geriatric medicine in 1992. After a few years of practice in southern California, he jointed Sharp Rees-Stealy Medical Group in San Diego 1996 and continued until current. Now he worked as a post-acute care physician of Sharp Extended Care at Arbor Hills nursing rehabilitation center.

Christine J. Wilson

Chris Wilson is a Registered Nurse and Attorney. Her law firm, Tyler & Wilson, acts as general counsel for skilled nursing facilities and other health care providers, advising on a wide variety of legal issues including regulatory compliance, employment law, contracts, and litigation.

Before completing her law degree, Ms. Wilson held various positions in both acute and skilled nursing facilities from nurse's aide to Director of Nursing. She holds a Graduate Certificate in Health Care Ethics from Creighton University where she is also currently completing her Master's degree. Ms. Wilson is a member of the Joint Bioethics Committee of the LA County Bar and LA County Medical Association and serves on the Steering Committee for the Southern California Bioethics Committee Consortium. She has presented numerous continuing education programs for physicians, nurses, and health care managers on medical-legal, bioethics, business and employment issues.

Poster Session Faculty and Planner Disclosures

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The following faculty and planners have indicated any affiliation with organizations which have interests related to the content of this conference. This is pointed out to you so that you may form your own judgments about the presentations with full disclosure of the facts. All conflicts of interest have been resolved in accordance with the ACCME's Standards for Commercial Support.

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Faculty and Planner Disclosures (cont.)

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Christine J. Wilson, RN, JD, CHCE	Author	None	

Thank you for attending the 43rd Annual Meeting

Save the date for the following events:

Leadership and Management in Geriatrics
September 8 & 9, 2017
Marriott Airport Hotel
Burbank, CA

Northern California Meeting
The Best of Quality Through Best Practices
Fall 2017 (Date to be Confirmed)
UC Davis, Sacramento, CA

44th Annual Meeting
Quality Through Best Practices
May 18 & 19, 2018
Omni Los Angeles at California Plaza
Los Angeles, CA

Contact the CALTCM Executive Office with questions about these events at (888) 332-3299.