Diabetes Care Implementation in Skilled Nursing Facilities

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- Neither speaker has a financial conflict of interest.

Key Points

- Status of Diabetes Care in SNF Setting
- Health Care Reform and Transparency pressures
- Change barriers & New opportunities
- Helpful Resources
  - Metrics
  - P&P
  - Order sets and Tools
  - Education
  - Key Articles and Guidelines
  - Attachments

Status of Diabetes Management in NH Setting (JAMDA 10: 354–360; June 2009)

- 6 state retrospective study of 13 Nursing Home's DM Care in 2008 using:
  - Survey instrument
  - 26 question chart review.
- Findings:
  - 15% of facilities had a policy for the use of treatment algorithms in residents with diabetes
  - 7.1% had a policy for A1C testing
  - 1% had a target for A1C established

Findings:

- 30.8% had a policy for glucose monitoring
- 57% were taking ASA or Clopidogrel
- 29% of those taking Metformen had GFR < 60
- 71% of residents on insulin were doing so on a sliding scale basis (despite evidence for inferiority of this strategy)
- Common frustration of many interviewed DONs: "**Too many different approaches, standardization would be helpful**"

Prevalence of SSI in Nursing Homes

N. Pandya, et al; JAMDA **9: 663–669** Nov 2008

- Longitudinal study 2002 & 2003 of 9804 NH residents with DM, > 65 y/o, with > 1 month stay.
  - Followed for a mean of 6.4 +/- 6.1 mo.
- 71% received insulin during their stay (5482)
- 54% of initial insulin orders were for SSI
  - 71% at initiation if resident on 3 or more classes of OAD

SSI Persistence in NHs

- The initial choice of SSI regimens tended to persist
  - Only 17.1% switched to a non-SSI regimen over the course of their NH stay.
- If initial choice was not for a SSI regimen,
  - Only 33% eventually converted to SSI regimen
- **Conclusion**:
  - SSI regimens are highly prevalent and once initiated tend to persist, despite recommendations of ADA, AACE, AGS, & AMDA.

Risk/Benefits of Implementing Glycemic Control Guidelines in Frail DM; JAGS 59:666-672, April 2011

- UCSF Implementation Study in On-Lok patients Treated to goal A1C < 8% per AGS 2003 guidelines.
- In 2004, On-Lok patients with DM, > 30% had A1C > 8%
- Studied patients in 3 time periods:
  - Before (N=338); 10/02-12/04
  - Early intervention (289); 1/05-6/06
  - Late Intervention (385); 7/06-12/08
- Results:
  - Reduced hyperglycemia (> 400 mg%) episodes by 54%
  - More episodes of hypoglycemia requiring ER care
  - Hypoglycemia risk greatest during early intervention was greater then in later intervention group (2.9 vs 1.1)
  - Fewer residents with A1C > 8% (26% in early, 16% in late gp)

Appendix 1. Table G-3. Determination of Target HbA_1c Level (1) (2)

Major Comorbidity (d) or Physiologic Age	Microvascular Complications		
	Absent or Mild (a)	Moderate (b)	Advanced (c)
Absent >10 years of life expectancy	<7%	<8%	8-9% *
Present (e) 5 to 10 years of life expectancy	<8 %	<8%	8-9% *
Marked (f) <5 years of life expectancy	8-9% *	8-9% *	8-9% *

Status of CVDZ Risk Reduction Nationally – not setting specific

- AACE Diabetes Care Guidelines: Endocr Pract. 2011;17(supplement 2), April, 2011
  - https://www.aace.com/publications/guidelines
- Only 7-13% of patients with DM have optimal care of CVD risk:
  - Aspirin daily
  - Lipids
  - Glucose
  - HBP
- Comprehensive diabetes life style management needed.
- Kaiser PHASE Program

NEJM KP Study on MI Reduction

NEJM 362:215565; June 10, 2010

- 10 yr. Population Trends in Incidence and Outcomes of Acute MI
  - Kaiser, Northern California Population
  - Studied all MIs in >30 y/o 1999-2008
- Found:
  - 24% relative risk reduction in MIs
  - 62% reduction in ST segment elevation MIs
  - 24% reduction in 30 day mortality

Launching Accountable Care Organization (D. Berwick; NEJM Ma 31, 2011)

- Purpose of ACOs:
  - Better care for individuals
  - Better health for populations
  - Slower growth in costs through improvement in care
- Medicare will share savings with ACOs that:
  - Deliver high quality care
  - Reduce the cost of care below what would be expected.

ACO: Focus is Patient Centered

- Honor individual patient preferences
- Providers will engage patients in shared decision making about diagnostic and therapeutic options.
- Information Management will be a core competency
  - The right info for patients/providers at the point of care
- Rigorous Measurable quality standards

Proposed Quality Measures for DM

- Composite & Individual Measures of:
  - A1C, LDL Cholesterol < 100,
  - BP < 140/90
  - Tobacco non-use, Aspirin use
- Poor Glycemic Control (A1C > 9%)
- BP control
- Screening rates for microalbuminuria
- Dilated Eye Exam
- Foot Exam

Other Delivery Reform Initiatives:

- Expanded use of Medical Homes
- Bundled Payments
  - Kaiser Permanente Senior Advantage
- Value Based Purchasing
- “Inpatient Status” / RAC Audits / 3 day qualifying stay
- Pay for Performance (P4P)
- Incentives for “Meaningful Use” of EMRs
- Payment Reforms
- Public Report Cards & Transparency

Change “We Can”, But…..

- Change Inertia
  - “I give quality care already and don’t need ‘cookbook’ medicine”
- Lone ranger model of CQI widely practiced
- Superficial “root cause” assessments with emphasis on “doing something” POC
- Too busy “Putting Out Fires”
- Surveyors are a key customer & QI focus
- NH is a minor part of the practice of most of our Attending Physicians.
- High Personnel turnover

Demographic Challenges

- Aging Population
- Many serious co-morbid Illnesses
- Limited life expectancy
- Multi-Cultural patients/work force
- Decision-making/Motivation differences
  - Individualism; Family; Respect for Elders
- LEP (Low English Proficiency)
- Education Level Disparities
- Cognitive impairment & Depression

Change is more Feasible now

- Communication is much easier via email, texting, cell phones, tablets, social networks
- Quality free information is much more available via internet, you tube, webinar, fax, aps (Medscape), etc.
- Wireless Internet in Facilities, Smart phones, I-Pad, COWS, Netbooks, Chrome cloud computing, etc.
- Collaborative networks are forming around specific care issues:
  - locally, regionally, nationally, and globally.
  - POLST Coalitions / CARE recommendations / Culture Change / Advancing Excellence
- Expertise is being shared more broadly across care models

Sonoma County Diabetes Care SNF Collaborative

- Kaiser, Santa Rosa, Diabetes & Continuity of Care Departments
  - Dr. Roger Minkoff; Dolores Burden RN; CDN; Dr. Tom Crane
- Parkview Gardens SNF
  - Janice Diez DNS, CDN; Rex Nambayan RN; Eric Moessing, Admin
- Apple Valley Sub-acute Care
  - Jeff Barbieri, Admin.
- Creekside Care and Rehab
  - Tracy Clark, DNS; Paul Durancyzk Admin.
- Summerfield Care and Rehab
  - Claudia Alexander, DNS; Matt Rutter Admin
- Spring Lake Village CCRCSherry Taylor, DNS; Kris Hermanson, Admin.
- Santa Rosa Memorial Hospital Chief Hospitalist
  - Dr. Aynna Yee

What are potential QI Measures?

- Glycemic Targets
- Management of Hypo- & Hyper- glycemia
- Lipids / Obesity
- HBP
- CKD identification / prevention
- CVDz event risk reduction
- Eye Care
- Foot Care
- Mouth Care
- Sleep Hygiene
- Pain Management
- Self Care

Potential Glycemic Metrics:

- Goal for A1C
- Goal for Pre-prandial FS Glc range
- % of patients at glycemic goal by 3 & 6 mo.
- # Hypoglycemic episodes requiring rule of 15 / mo.
- # ER visits q 3 mo for hypoglycemia
- # of patients with episodes of FS Glc >400 / mo
- # of patients on SSI w/o prandial insulin after >1 mo stay.

Potential Metrics:

- # of Patients with LDL Goal defined
- % eligible patients on Statin drug
- # of patients reaching target LDL by 3, or 6 mo stay
- % of patients with personalized MNT plan.
- % of eligible patients with avg. SBP < 140 each month
- % of eligible patients who have micro-albumen level documented w/in past yr
- % of eligible patients on ASA or Clopidogrel.
- % of smokers who have had appropriate info / cessation support.

Potential Metrics:

- Foot Care
- Eye Care
- Oral Care
- Sleep Hygiene

- **After SNF D/C** Measurements @ 3, 6 mo (KP patients):
- Readmission Acute Hospital
- A-1C
- SBP
- Non-smoker rate
- LDL Cholesterol

P&P Identified, Reviewed, Findings:

- Nursing management of hypoglycemia sanctions over treatment with O.J. + 1-2 packets of sugar
- Multiple QI issues not addressed
- Conflicting care plans between policies.
- Unnecessary redundancies

Potential Adjustments to P&P:

- Care metrics on persons with diabetes reported at QI meetings
- Blood Pressure measured in most functional position
  - KP policy in persons with diabetes based on HYVET NEJM 2008 Study
- Personalized education for persons with diabetes
- Preventative care given for:
  - Feet, Mouth, and Eyes.

P&P Adjustments:

- CVDz risk reduction measures for:
  - Clotting risk: Aspirin or clopidagrel
  - HBP
  - Lipids
  - OSA and Sleep deprivation syndromes
  - Kidney function preservation
  - Smoking cessation
  - Pain management

Revised Policy & Procedures

- Nursing Care of for persons with diabetes
- Nursing Care of Hyperglycemia
- Nursing Care of Hypoglycemia
- Nursing Management of hyper and hypo-glycemia
- Use of Glucometer
- Use of Fingerstick Lancets / Autoclick
- Patient use of Insulin Pump.
- Patients with IDDM requesting self management of glycemia.

Diabetes Management in LTC Facilities, a Practical Guide; 6th Edition; April 2011

- www.ltcdiabetesguide.org
- Overall Practical Guide
- Training Materials for staff
- Educational Tools for Residents
- Sample Forms
- Glossary of Terms
- References
- Free and adaptable to the SNF setting

AMDA Diabetes CPG Tool Kit

- http://www.amda.com/resources/index.cfm
- Measurement tools
- Ppt. In-services for CNAs, Nurses, & Physicians with notes for presenter
- Summary of Practitioner Responsibilities
- Check list for P&P
- Template Letters
- Task Assignment Grid
- Glucose log
- Types of Insulin Sheet
- FAQ
- Costs $85 members; $110 non-members

New Implementation Tools

- Template Letter to Attending Physicians
- Admission Standing Order Set
  - Establishes uniform baseline data base and care plan
- Admission Diabetes Care Order Set
  - Helps IDT develop a comprehensive and individualized care plan
- Diabetes Coalition of California Outpatient Insulin Guidelines
  - http://www.caldiabetes.org/content_display.cfm?contentID=1274&CategoriesID=56

New Tools

- Insulin Tip Sheet from PharmAmerica for Med Cart
- AMDA Types of Insulin sheet for Med Cart
- Insulin MAR sheet with goal A1C & FS Glucose AC range, and Rx for hyper- & hypoglycemia (Dr. Rebecca Ferrini et al)
- Outcomes Metrics tool (Adapted from AMDA tool)

Tools for Educating Staff

- Pre-test for nurses based on AMDA Tool Kit FAQ
- Pre-test answers
- Diabetes Quick Cases
  - https://www.quickcasesindiabetes.com/quickcases.aspx
  - 3 -15 min audio power points from Sanofi-Avantis
    - Glucose Management
    - Insulin basics
    - Switching sliding scale to basal insulin
- Diabetes Nursing Web based Education Sheet.

Tools for Educating Patients

- Diabetes Web based education sheet
  - Patient, family, or staff use
- Handouts from AADE7
  - www.ltcdiabetesguide.org
- Control your Diabetes for Life Handout
  - www.mn-dc.org
  - Free
- Joslin Clinic Diabetes Education Form for staff use.
  - www.ltcdiabetesguide.org

Education Methods:

- Printed AADE7 material
- DSD to use DM Management in LTC Practical guidelines with goal of teaching nurses how to assess competencies & coach for success rather then do for patients.
- Facility supplies free wireless internet access
- Facility supplies Netbooks for patient education
- Patient Assessment worksheet from Joslin Clinic.

Physician / NP Education Options

- Physician Advisory Facility Meetings
- Email / fax / phone communication with staff regarding basis for changes
- Multi-facility sponsored dinner & education program for mutual attendings/NPs
- CMA Foundation “Diabetes & Cardiovascular Disease and Reference Guide”; Dec 2010
  - http://www.thecmafoundation.org/projects/aped/Provider_DiabetesRefGuide2010.html
  - Well organized systemic PRG for diabetes care
  - Multicultural education module
  - Free

Articles & Resources

- Executive Summary: Standards of Medical - Care in Diabetes—2011
  - http://care.diabetesjournals.org/
  - Free & updated every January
- Diabetes Coalition of California Adult Outpatient Diabetes Insulin Guidelines
  - http://www.caldiabetes.org/content_display.cfm?contentID=1274&CategoriesID=56
- **AHA April 2011 Consensus Guideline on Rx HBP in the Elderly**
  - **http://content.onlinejacc.org/cgi/reprintframed/57/20/2037**
  - **Free**
- CMA Foundation “Diabetes & Cardiovascular Disease and Reference Guide”; Dec 2010
  - http://www.thecmafoundation.org/projects/aped/Provider_DiabetesRefGuide2010.html

Articles and Documents

- Yale Diabetes Meeting Review Newsletter:
  - www.cme.yale.edu
  - Click on “Diabetes Newsletter” & register on list serve
  - Daily reviews of 4 key DM meetings
  - ADA, AHA, EASD, ACC
- AACE; American Association of Clinical Endocrinologists
  - Medical Guidelines for Comprehensive DM Care April 2011
  - https://www.aace.com/publications/guidelines
  - Free

Attachments:

- Standing Orders Tool
- Diabetes Order Set Tool
- Template Letter to Attending Physicians
- Template MAR for Insulin
- Insulin tips tools for Med Cart
- Facility P&P’s

Attachments

- Va DoD A1C Target Grid
- AMDA Process and Measurement Tools
- PVG Metrics Tool
- Diabetes Web Based Patient Education Handout
- Diabetes Web Based Nursing Education Handout
- SMF Adult Outpatient Insulin Guidelines