Virginia Long-Term Care Clinician Network Monthly Forum

December 18, 2024



Welcome!

As you join, please turn on cameras and mic or unmute your phone and say hello to your Virginia colleagues. We all have a common bond: the choice to serve in a unique area of health care.



Please use the chat box:

- Your name, practice and areas of practice
- Best wishes for some restful days over the next month!

Welcome New Members!

Samantha Halterman - Northwest/Central Region Alyssa Jessup - Eastern Region Hyacinth Johnson - Central Region Jennifer Johan - Northern Region Utam Lekhraj - Eastern Region Laura Manner - Eastern Region Shirley Dodson McAdoo - Eastern Region Ashley Singleton - Central Region

Invite your work colleagues to join so they can get Education, Support and CME!



285 Members Strong!



For great resources: look for previous slide sets and newsletters under Forums & Events and Resources on our website.

Chat Waterfall

In Chat, respond to the question below, but don't hit the send button yet! Wait for the countdown...

How does your team, if you have one, do workday scheduling? Do you self schedule, a non clinical person make a schedule, texts to colleagues seeking coverage, etc.?



Jones Run Falls about an hour from Waynesboro VA

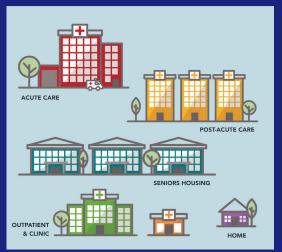
Diabetes Update in PALTC

GLP-1 Agonists and Continuous Glucose Monitoring

Carl J. "Christian" Bergman, MD, CMD, FACP, AGSF Associate Professor, Division of Geriatric Medicine, VCU

I have no relevant conflicts of interest.





Key Resources

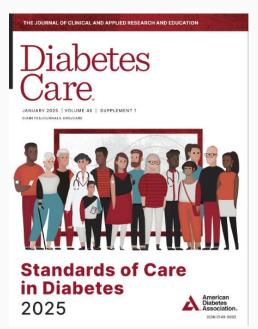




DIABETES MANAGEMENT

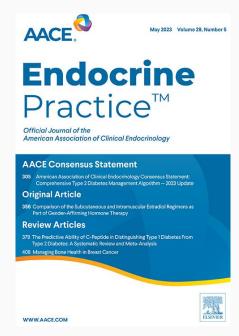
in the Post-Acute and Long-Term Care Setting

August 2024



https://paltmed.org/sites/default/files/2024-08/Diabetes Text-August22-2024.pdf

https://diabetesjournals.org/care/issue/ 48/Supplement 1



https://www.endocrinepractice.org/issue/S1 530-891X(22)X0008-6#

Diabetes in PALTC Background

- Annual cost of diagnosed diabetes in US (2022) was \$413 billion (direct and indirect)
 - Has increased by 35% between 2012 and 2022.
- Prevalence of diabetes in PALTC 25-34%
- Independent predictor of placement in nursing home or assisted living
- Unclear treatment goals in this patient population
- High rate of co-morbid conditions

Key Recommendations

- Avoid prescribing restrictive diets
- Avoid strict adherence to low A1C numbers
- Avoid sliding scale insulin
- Consider newer oral agents (DPP4, SGLT2)
- Consider newer injectable GLP1 analogs

Highlights from ADA – Standards of Care 2025



Standards of Care in Diabetes 2025



\$128 6. Glycemic Goals and Hypoglycemia

Assessment of Glycemic Status
Glycemic Goals
Hypoglycemia Assessment, Prevention,
and Treatment
Intercurrent Illness
Hyperglycemic Crises: Diagnosis, Management,
and Prevention

S146 7. Diabetes Technology

General Device Principles Blood Glucose Monitoring Continuous Glucose Monitoring Devices Insulin Delivery

8. Obesity and Weight Management for the Prevention and Treatment of Type 2 Diabetes

Assessment and Monitoring of the Individual With Overweight or Obesity Nutrition, Physical Activity, and Behavioral Therapy Pharmacotherapy Medical Devices for Weight Loss

Metabolic Surgery

9. Pharmacologic Approaches to Glycemic Treatment

Pharmacologic Therapy for Adults With Type 1 Diabetes Surgical Treatment of Type 1 Diabetes Pharmacologic Therapy for Adults With Type 2 Diabetes Additional Recommendations for All Individuals With Diabetes Special Circumstances and Populations

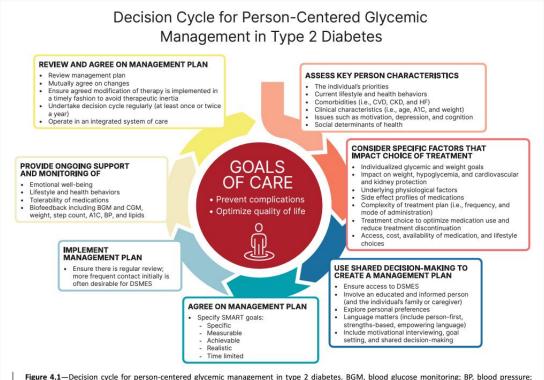
\$266 13. Older Adults

End-of-Life Care

Neurocognitive Function
Hypoglycemia
Treatment Goals
Lifestyle Management
Pharmacologic Therapy
Special Considerations for Older Adults With Type 1
Diabetes
Treatment in Post-Acute and Long-Term
Care Settings

https://diabetesjournals.org/care/issue/48/Supplement 1

Decision Cycle for Person-Centered Glycemic Management in Type 2 Diabetes



https://diabetesjourn als.org/care/issue/4 8/Supplement 1

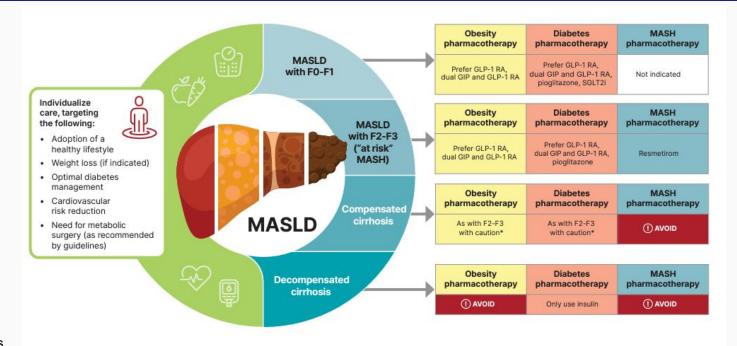
Figure 4.1—Decision cycle for person-centered glycemic management in type 2 diabetes. BGM, blood glucose monitoring; BP, blood pressure; CGM, continuous glucose monitoring; CKD, chronic kidney disease; CVD, cardiovascular disease; DSMES, diabetes self-management education and support: HF. heart failure. Adapted from Davies et al. (324).

Fasting – Religious vs. Intermittent

Medication name	Risk of hypoglycemia	Timing	Total daily dose
Metformin, SGLT2 inhibitor, DPP-4 inhibitor, GLP-1 receptor agonist, acarbose, or pioglitazone	Low	If once daily, then take at main mealtime. If twice daily, then split dose between the two meals. If once weekly, no change of time.	No change
New generation sulfonylurea (glimepiride and gliclazide)	Low to moderate	 If once daily, then take at main mealtime. If twice daily, then split dose between the two meals. 	 Reduce dose if glucose levels are within individualized goal range and if no hypoglycemia or hyperglycemia is present at baseline.
Older generation of sulfonylurea (glyburide)	Moderate to high	Take at time of main meal	 Replace with newer-generation sulfonylurea or reduce dose by 50%.
Basal insulin	Moderate to high	 For longer-acting basal analogs (glargine 300 or degludec), no need to change timing. For other basal insulins, take at beginning of breaking fast meal. 	 Choose the insulin with lower risk of hypoglycemia among the class. Reduce dose by 25–35% if not well managed.
Prandial insulin	High	At mealtime	 Reduce dose of insulin for the meal followed by fasting (35–50%). For other meals, insulin dose should match carbohydrate intake.
Mixed insulin and insulin coformulations	High	If once daily, then take at main mealtime. If twice daily, then split dose between the two meals	 Reduce dose of insulin for the meal followed by fasting (35–50%). For other meals, no change of dose.

https://diabetesjourn als.org/care/issue/4 8/Supplement 1

Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) Treatment Algorithm

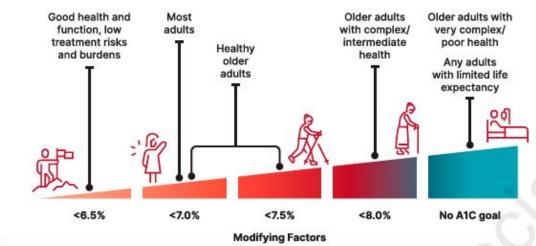


https://diabetes journals.org/ca re/issue/48/Su pplement 1

*Individualized care and close monitoring needed in compensated cirrhosis given limited safety data available.

Figure 4.3—Metabolic dysfunction—associated steatotic liver disease (MASLD) treatment algorithm. F0-F1, no to minimal fibrosis; F2-F3, moderate fibrosis; F4, cirrhosis; GIP, glucose-dependent insulinotropic polypeptide; GLP-1 RA, glucagon-like peptide 1 receptor agonist; MASH, metabolic dysfunction—associated steatohepatitis; SGLT2i, sodium—glucose cotransporter 2 inhibitor.

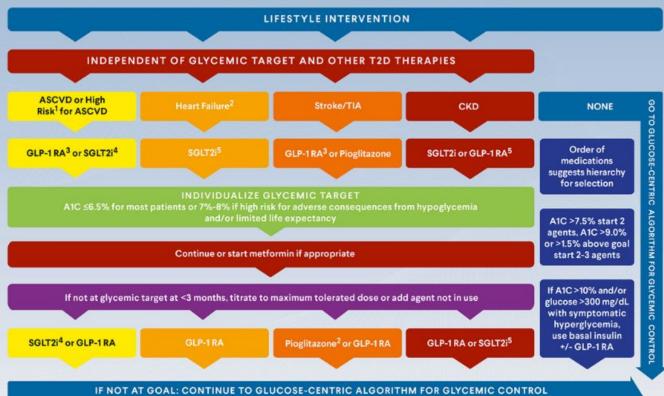
Individualized A1C Goals



Favor more stringent goal	Favor less stringent goal
Short diabetes duration	Long diabetes duration
Low hypoglycemia risk	High hypoglycemia risk
Low treatment risks and burdens	High treatment risks and burdens
Pharmacotherapy with cardiovascular, kidney, weight, or other benefits	Pharmacotherapy without nonglycemic benefits
No cardiovascular complications	Established cardiovascular complications
Few or minor comorbidities	Severe, life-limiting comorbidities

https://diabetes journals.org/ca re/issue/48/Su pplement 1

COMPLICATIONS-CENTRIC ALGORITHM FOR GLYCEMIC CONTROL



https://www.e ndocrinepract ice.org/issue/ S1530-891X(22)X0008-6#

IF NOT AT GOAL: CONTINUE TO GLUCOSE-CENTRIC ALGORITHM FOR GLYCEMIC CONTROL OR ALGORITHM FOR ADDING/INTENSIFYING INSULIN

High risk for ASCVD: albuminuria or proteinuria, hypertension and left ventricular (LW) hypertrophy, LV systolic or diastolic dysfunction, ankle-brachial index < 0.9.

COPYRIGHT® 2023 AACE. May not be reproduced in any form without express written permission from Elsevier on behalf of AACE. Visit https://doi.org/10.1016/j.eprac.2023.02.001 to request copyright permission.

Algorithm Figure 6-Complications-Centric Glycemic Control



²TZDs are contraindicated in NYHA Class III/IV HF. ³ASCVD; liragiutide/semagiutide/dulagiutide or Stroke; semagiutide/dulagiutide.
⁴canagiiflozin/empagiflozin. ⁵Use SGLT2i or GLP-1 RA with proven benefit.

GLUCOSE-CENTRIC ALGORITHM FOR GLYCEMIC CONTROL LIFESTYLE INTERVENTION Start or continue metformin if appropriate1 INDIVIDUALIZE GLYCEMIC TARGET A1C ≤6.5% for most persons or 7%-8% if high risk for adverse consequences from hypoglycemia and/or limited life expectancy Patients may Access / Cost Severe Hyperglycemia4 Overweight or Obesity² Hypoglycemia Risk3 present with >1 scenario Order of medications suggests hierarchy or + GLP-1 RA I GIP/GLP-1 RA for selection7 A1C >7.5% start 2 agents, A1C > 9.0% or >1.5% above goal start 2-3 agents GLP-1 RA | GIP/GLP-1 RA | Other agents likely Concerns Avoid SU/GLN Avoid SU/GLN SGLT2il COLSVL ineffective in the setting or Not of glucotoxicity⁵ Preferred BRC-OR Titrate to maximum tolerated dose. If not at glycemic target at ≤3 months, add best available agent not in use⁷ GLP-1 RA | GIP/GLP-1 RA | SGLT2i | TZD | DPP-4i | SU/GLN | COLSVL | BRC-OR | PRAML¹¹ IF NOT AT GOAL: CONTINUE TO ALGORITHM FOR ADDING/INTENSIFYING INSULIN

https://www.e ndocrinepract ice.org/issue/ S1530-891X(22)X0008-6#

1 Take with food with dose titration for enhanced tolerance. ²See also COMPLICATIONS-CENTRIC MODEL FOR THE CARE OF PERSONS WITH OVERWEIGHT/OBESITY and PROFILES OF WEIGHT-LOSS MEDICATIONS table. ²Evaluate for issues leading to hypoglycemia or hypoglycemia unawareness and manage with patient-centered strategies. ⁴If AIC >10% and/or BG >300 with symptomatic hypoglycemia, reduce glucose/AIC as promptly and asterly as possible. ⁵See also ALGORITHM FOR ADDING/INTENSIFYING INSULIN. ⁶GLP-1R A requires titration phase which can delay glycemic control. After glucose toxicity is resolved,consider adding other agents. ⁵See also PROFILES OF ANTHEYPERGIVCEMIC MEDICATIONS table. ⁶GLP-1RA and DPP-4i should not be combined. ⁹TZD can cause fluid retention but have benefit for NAFLD, CVD prevention, dyslipidemia. ¹⁰Access/Cost are dependent on location of the market. Insulin costs vary widely with devices (e.g., pens versus vials) and formulations (e.g., analogues versus combinations such as 70/30). ⁹PRAML is used as an adjunct with prandial insulin.

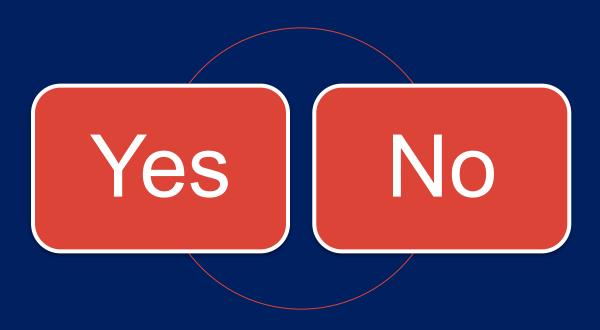
COPYRIGHT © 2023 AACE. May not be reproduced in any form without express written permission from Elsevier on behalf of AACE. Visit https://doi.org/10.1016/j.eprac.2023.02.001 to request copyright permission.

Algorithm Figure 7-Glucose-Centric Glycemic Control



Poll Question:

Are you routinely using GLP-1RA in your PALTC practice?



Glucose Lowering Medications in T2DM

SGLT-2 inhibitors

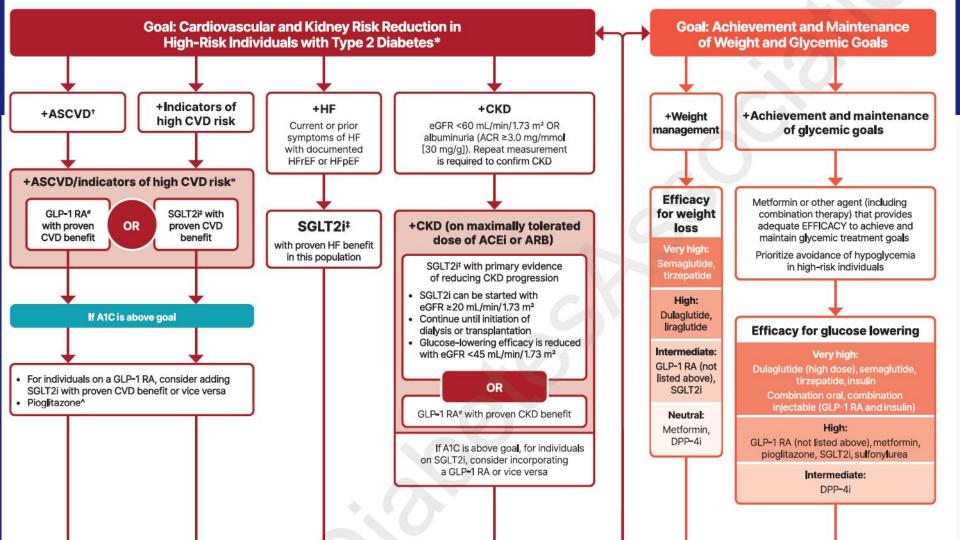
- mechanism: SGLT2 inhibitors inhibit the coupled reabsorption of sodium and glucose from the proximal tubules, thereby increasing renal glucose and sodium excretion
- intermediate/high efficacy, no risk of hypoglycemia, benefit for wt loss, MACE, HF, CKD
- possible DKA risk, necrotizing fasciitis of perineum, higher UTI/urogenital infections, volume depletion/dehydration
- canagliflozin (Invokana) PO, dapagliflozin (Farxiga) PO, empagliflozin (Jardiance) PO

GLP-1RA

- mechanism: GLP-1 receptor agonists work by mimicking the action of GLP-1, it regulates blood sugar levels by stimulating insulin secretion, inhibiting glucagon release, and slowing gastric emptying
- high efficacy, no hypoglycemia risk, weight loss benefit high, benefit for MACE, neutral in HF, benefit in CKD
- concerns: thyroid cancer, ileus, pancreatitis, gallbladder disease, diabetic retinopathy, decreased drug absorption, GI side effects (not for gastroparesis pts)
- exenatide (Byetta) BID IM, liraglutide (Victoza) qD IM, dulaglutide (Trulicity) qW IM, semaglutide (Ozempic) qW IM, tirzepatide (Mounjaro) qW IM

DPP-4i

- mechanism: block DPP-4 from inactivating GLP-1 thus, increasing incretin levels (GLP-1 and GIP), which inhibit glucagon release, which in turn increases insulin secretion, decreases gastric emptying, and decreases blood glucose levels
- intermediate efficacy, no risk of hypoglycemia, neutral benefit weight loss, MACE, HF, CKD
- concerns: pancreatitis, joint pain, bullous pemphigoid
- linagliptin (Trajenta) PO, saxagliptin (Onglyza) PO, sitagliptin (Januvia) PO



Glucose Lowering Medications in T2DM

Class	Compound	Dosage strength/ product (if applicable)	Maximum approved daily dose†	Median AWP (min, max)*	Median NADA((min, max)*
SGLT2 inhibitors	Bexagliflozin	20 mg	20 mg	\$47	NA
	Canagliflozin	300 mg	300 mg	\$718	\$574
	Dapagliflozin	10 mg	10 mg	\$664	\$352
	 Empagliflozin 	25 mg	25 mg	\$733	\$586
	Ertugliflozin	15 mg	15 mg	\$428	\$343
GLP-1 RAs	Dulaglutide	4.5 mg pen	4.5 mg‡	\$1,173	\$941
	 Exenatide 	10 mg pen	20 mg	\$1,020	\$818
	• Exenatide (ER)	2 mg pen	2 mg‡	\$993	\$1,101
	Liraglutide	18 mg/3 mL pen	1.8 mg	\$929	\$1,077
	 Semaglutide 	2 mg pen	2 mg‡	\$1,162	\$933
		14 mg (tablet)	14 mg	\$1,162	\$933
DPP-4 inhibitors	Alogliptin	25 mg	25 mg	\$234	\$145
	 Linagliptin 	5 mg	5 mg	\$630	\$503
	 Saxagliptin 	5 mg	5 mg	\$524 (\$523, \$524)	\$165
	 Sitagliptin 	100 mg	100 mg	\$588	\$550

https://diabetes journals.org/ca re/issue/48/Su pplement 1

Virginia Medicaid Formulary 2025

Diabetes: Injectable Hypoglycemics

Bvetta®

Humalog Cartridge & Vial & Pen

Humalog Kwikpen 100 unit/ml

Humalog Junior Kwikpen

Humalog Mix 50/50 vial & Humalog Mix 75/25 vial

Humulin 500 U/M pen/vial

Humulin* 70/30 pen/vial (OTC)

Humulin® N pen/vial (OTC)

Humulin® R pen/vial

insulin aspart cartridge pen/vial

insulin aspart/insulin aspart protamine insulin pen

insulin aspart/insulin aspart protamine vial

insulin lispro vial

insulin lispro Jr. Kwikpen

insulin lispro Pen

Lantus® Solostar® and vial

Levemir*pen/vial

Toujeo Solostar® Pen

Trulicity™

Victoza®

Diabetes: Oral Hypoglycemics

acarbose

FaRxiga™

glimepiride

glipizide IR & ER

glyburide & micronized

glyburide/metformin

Janumet® & Janumet XR®

Januvia®

Jardiance*

Jentadueto™

Jentadueto XR™

Kombiglyze XR™

metformin & metformin ER

nateglinide

Onglyza™

pioglitazone

repaglinide

Synjardy®

Synjardy® XR

Tradjenta™

Xigduo™ XR

Reminders:

- exenatide (Byetta) is a <u>twice-daily</u>
 IM injectable GLP-1RA.
- dulaglutide (Trulicity) is <u>a weekly IM</u> injectable GLP-1RA
- liraglutide (Victoza) is a <u>daily IM</u> injectable GLP-1RA

Diabetes Standards - Older Adults

Using the 4Ms Framework of Age-Friendly Health Systems to Address Person-Specific Issues That Can Affect Diabetes Management

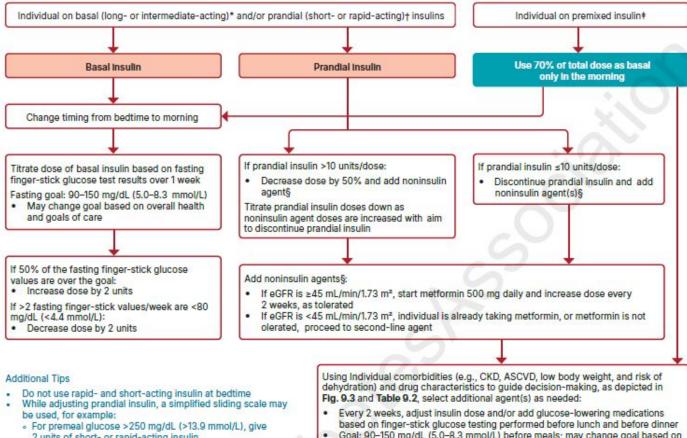
MENTATION MEDICATIONS Self-administration of medications Treatment burden · Affordability or insurance coverage Ability to use diabetes technology · End-organ disease or complications Anxiety, depression, and diabetes distress affecting medication choice Mild cognitive impairment or dementia Polypharmacy History of adverse medication effects Coping skills and self-care Social and family support Risk of hypoglycemia, hypoglycemia unawareness, and fear of hypoglycemia MOBILITY WHAT MATTERS MOST · Foot complications · Discussing goals and expectations · Symptom and disease burden Functional ability Meal and treatment preferences · Frailty and sarcopenia (e.g., injections and glucose monitoring) Leg weakness · Risks, burdens, and benefits of treatment Loneliness, social isolation, and overall Neuropathy quality of life Vision and hearing impairment Life expectancy

https://diabetes journals.org/ca re/issue/48/Su pplement 1

Figure 13.1—Using the 4Ms framework of age-friendly health systems to address person-specific issues that can affect diabetes management.

Simplification of Complex Insulin Therapy

Dia



https://diabetes journals.org/ca re/issue/48/Su pplement 1

- 2 units of short- or rapid-acting insulin
- For premeal glucose >350 mg/dL (>19.4 mmol/L), give 4 units of short- or rapid-acting insulin
- Stop sliding scale when not needed daily

- Goal: 90-150 mg/dL (5.0-8.3 mmol/L) before meals; may change goal based on overall health and goals of care
- If 50% of premeal finger-stick values over 2 weeks are above goal, increase the dose or add another agent
- If >2 premeal finger-stick values/week are <90 mg/dL (<5.0 mmol/L), decrease the dose of medication

Highlights from PALTmed CPG





DIABETES MANAGEMENT

in the Post-Acute and Long-Term Care Setting

August 2024

INTRODUCTION	
Definition	
Scope of the Problem in the Post-Acute and Long-Term Care Setting1	
Goals of Diabetes Care in the PALTC Setting	
► FIGURE 1. 4Ms Framework of Age-Friendly Care to Address Patient-Specific Issues That Can Affect Diabetes Management in the PALTC Setting	
Taking a Leap of Faith – With Supporting Evidence	
► TABLE 1. Key Research-Based Findings and Recommendations for Diabetes Care	
Components of a Systematic Facility Approach to Diabetes Management4	
► TABLE 2. Examples of Staff Roles in Diabetes Management	
► TABLE 3. Caring for Patients with Diabetes in the PALTC Continuum:	
Cross-Site and Site-Specific Considerations	
RECOGNITION9	
STEP I Identify diabetes using clinical suspicion and laboratory tests9	
► TABLE 4. Non-Specific Symptoms and Unique Syndromes Associated with Diabetes in Older Adults	
► TABLE 5. Commonly Used Classes of Medications That May Cause or Exacerbate Hyperglycemia	
► TABLE 6. Possible Symptoms and Signs of Hyperglycemia in Frail Elderly Patients	
► TABLE 7. Problems and Complications Associated With Diabetes in Older Adults	
► TABLE 8. Criteria for a Diagnosis of Prediabetes or Diabetes	
► TABLE 9. Conditions That Can Affect the Accuracy of the A1C Test12	
BOX: Optimizing the Recognition and Management of Type 1 Diabetes in Older Adults in the PALTC Setting	
Key Issues to Remember About Type 1 Diabetes in PALTC	
STEED Screen for possible diabetes in natients without a current diagnosis 13	

ASSI	ESSMENT	14
	STEP 3 Assess the patient's risk for hypoglycemia	14
	► TABLE 10. Risk Factors for Hypoglycemia	
	Signs and Symptoms of Hypoglycemia in Older Adults	
	Insulin as a Cause of Hypoglycemia	15
	Effects of Hypoglycemia in Older Adults	16
	Preventing Hypoglycemia	16
	STEP 4 Assess cardiac comorbidities exacerbated by diabetes	16
	STEP 5 Evaluate the nature and severity of diabetic complications	16
	► TABLE 11. Suggested Approach to Screening for Diabetes-Associated Complications	17
TRE.	ATMENT.	18
	STEP 6 Develop an individualized care plan and define the goals of medical treatment	18
	► TABLE 12. Clinical Care Considerations Across the PALTC Continuum	19
	► TABLE 13. Framework for Considering Diabetes Management Goals in PALTC Facilities	20

Highlights from PALTmed CPG

BOX: Classes of Medications That May Be Used to Treat Type 2 Diabetes (With Commonly Used Abbreviations)
Oral Agents
Agents Administered Orally or by Injection
Fixed-Ratio Combinations (GLP-1 + Basal Insulin)
STEP Implement the treatment plan
Recommended Approach to Diet
Pharmacotherapy
► TABLE 14. Overview of Available Oral Antidiabetic Agents
► TABLE 15. Overview of Non-Insulin Injectable Antidiabetic Agents30
► TABLE 16. Guidance on Optimal Medication Selection by Clinical Criteria 35
TABLE 17. Additional Caveats and Cautions When Prescribing Diabetes
Medications in PALTC
BOX: Hyperglycemia Management in Type 2 Diabetes: Focus on Cardiorenal Comorbidities
Asymptomatic Patients with Newly Diagnosed Type 2 Diabetes
Patients with Cardiorenal Comorbidities
Insulin Therapy
► TABLE 18. Types of Insulin and Their Pharmacokinetics
► TABLE 19. When to Use Insulin
► FIGURE 2. Simplification of Complex Insulin Therapy
Sliding-Scale Insulin: Not for Long-Term Glycemic Management
► TABLE 20. Strategies for Replacing Sliding-Scale Insulin in PALTC Facilities
Correction-Dose Insulin
Treating Hypoglycemia45
Key Points
The "Rule of 15"
Appropriate Use of Glucagon
TABLE 21. Hypoglycemia Treatment Protocol
When to Call the Practitioner
BOX: Reporting Abnormal Glucose Levels to Practitioners: Guidance for PALTC Staff

STEP 8 Prevent and treat selected complications of diabetes
Oral Care
BOX: Maintaining Oral Health in Patients With Diabetes
Foot Care
BOX: Maintaining Foot Health in Patients With Diabetes
Initial Assessment.
Treatment
STEP 9 Optimize transitions of care
► TABLE 22. Checklists for Patient Transitions of Care
Tube Feeding of Patients With Diabetes.
► TABLE 23. Guidance for Tube Feeding of Patients With Diabetes
Care of Terminally Ill Patients With Diabetes
MONITORING
STEP 10 Re-evaluate the patient periodically.
STEP 11 Monitor the patient's blood glucose levels
► TABLE 24. Suggested Elements of Comprehensive Monitoring for Patients with Diabetes Who Have Minimal Physical and Cognitive Impairments
Continuous Glucose Monitoring
STEP 12 Monitor the patient who is at high risk for diabetes
STEP 13 Monitor the facility's management of diabetes
MANAGING DIABETES IN ASSISTED LIVING COMMUNITIES – SPECIAL CONSIDERATIONS
BOX: Summary
APPENDIX 1. Case Study: A Successful Intervention in the Assisted Living Setting
APPENDIX 2. Checklist for Quality Improvement Project to Implement the
PALTmed Diabetes Management Clinical Practice Guideline
APPENDIX 3. Correlation of A1C Levels with Mean Blood Glucose Levels
BIBLIOGRAPHY

https://paltmed. org/sites/default /files/2024-08/D iabetes_Text-A ugust22-2024.p

cn.vcu.edu

Facility Approach to Diabetes

- Clarify roles of staff members (RN/LPN, CNA, Dietician, SW, PT/OT/SLP, etc.)
 - Change of Condition, Care of equipment, care transitions, psychosocial assessment, nutritional management, fall risk, oral care, etc.
- Staff education (ex: CGM and s/s of hypo-/hyper-glycemia)
- For all patients (review glucose trends, review meds, assessment of eyes/feet/mouth/skin, collaborate with dietician, education pts/families)
- Track facility-wide quality metrics

Clinical Care across PALTC Continuum

TABLE 12. Clinical Care Considerations Across the PALTC Continuum

LONG-TERM CARE			ALF
SKILLED REHAB	LTC	HOSPICE/PALLIATIVE	ALF
Avoid reliance on A1C BG target 100–200 mg/dL (5.5–11.1 mmol/L) Potential for discharge Cognitive impairment Expressed wishes of	Avoid reliance on A1C Avoid hypoglycemia and symptomatic hyperglycemia Goals of care Cognitive impairment Glycemic goals	Avoid hypoglycemia and symptomatic hyperglycemia Goals of care Clinical complexity Comfort Wishes of patient and	Avoid hypoglycemia A1C below 8% if feasible Complications and comorbidities Cognition Functional ability
patient Self care and function Community support	Complications and comorbidities	family	Staffing capability BG monitoring/injections

ASSESS ALL PATIENTS FOR THE FOLLOWING:

- Hypoglycemic risk
- Renal function
- CV risks and complications
- Weight loss
- Frailty
- Prognosis

Caveats/Cautions

Medication	When to Avoid
Metformin	Decompensated HF eGFR less than 30 Hepatic disease Risk of dehydration If patient has diarrhea, consider ER formulation or alternative agent
GLP1-RA	Anorexia Chronic constipation Gastroparesis or other motility issues Unexplained GI symptoms Weight loss Preferred in presence of ASCVD or HF
SGLT2 inhibitor	Acute kidney injury Bedbound status Dehydration Dialysis Fractures Frequent UTI or genital yeast infection Inability to drink fluids independently Urinary incontinence Weight loss Stop 5 d prior to elective procedure Preferred in presence of CKD or HF
DPP-4 inhibitor	Severe anorexia Unexplained GI symptoms Do not use with concurrent GLP1-RA

Basal insulin	Hypoglycemia risk Injectable treatments not possible in care setting (e.g., some ALFs) Inconsistent BG monitoring Lack of caregiver support Stop sulfonylureas, SSI
Prandial insulin	Erratic meal consumption Hypoglycemia risk Injectable treatments not possible in care setting Inconsistent BG monitoring Lack of caregiver support Tube feeding Stop sulfonylureas, SSI
Sulfonylureas	Concurrent insulin use Dementia Hypoglycemia risk
TZDs	Bladder cancer HF or other edema Osteoporosis

ALF, assisted living facility; ASCVD, atherosclerotic cardiovascular disease; BG, blood glucose; CKD, chronic kidney disease; DPP-4, dipeptyl peptidase 4; eGFR, estimated glomerular filtration rate; ER, extended release; GI, gastrointestinal; GLP1-RA, glucagon-like peptide-1 receptor agonist; HF, heart failure; SGLT2, sodium glucose transporter 2; SSI, sliding-scale insulin; UTI, urinary tract infection

Dealing with SSI

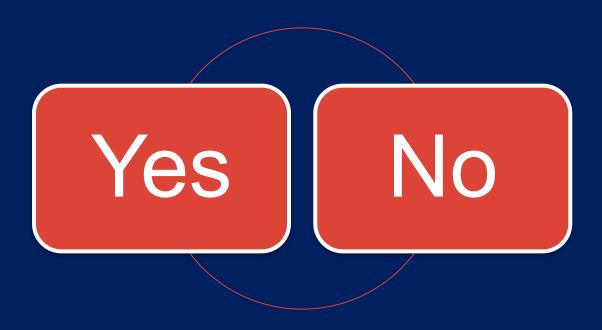
Current Regimen or Clinical Scenario	Suggested Steps
SSI is sole mode of insulin treatment	 Give 50%-75% of the average daily insulin requirement over 5-7 d as basal insulin Stop SSI Use non-insulin agents or fixed-dose meal-time insulin for PPG as needed Consider giving basal insulin in morning to reduce PPG and nocturnal hypoglycemia
SSI is used in addition to scheduled basal insulin	 Add 50%-75% of the average insulin requirement currently given as SSI to the existing basal dose Use non-insulin agents or fixed-dose meal-time insulin for PPG as needed
SSI is used in addition to basal and scheduled mealtime insulin (i.e., correction dose insulin)	 If a correction dose is frequently required, add the average correction dose before a meal to the scheduled mealtime insulin dose at the <i>preceding</i> meal If BG is consistently elevated before breakfast, requiring correction doses, increase the scheduled basal insulin dose by the average correction dose used

SSI is used short term due to illness or irregular dietary intake	 Short-term SSI use is appropriate in cases of acute illness and irregular dietary intake As health and BG stabilize, stop SSI, return to previous regimen as tolerated, and reduce monitoring frequency
Patient with cognitive decline or irregular dietary intake has widely fluctuating BG levels	 Use scheduled basal and meal-time insulin based on individual needs with the goal of avoiding low BG Consider using a simple scale such as "Give 4 units of prandial insulin if BG is higher than 300 mg/dL" Keep patients hydrated when glucose levels are higher than 300 mg/dL

BG, blood glucose; PPG, postprandial glucose; SSI, sliding-scale insulin Adapted from Munshi, 2016

Poll Question:

Have you started using CGM for your LTC or AL patients?



Continuous Glucose Monitoring

The use of CGM technology offers several potential advantages in the PALTC setting, including

- Reducing staff time spent monitoring patients' blood glucose levels
- Detecting hypoglycemia (especially nocturnal hypoglycemia)
- Detecting glucose variability (i.e., fluctuations in blood glucose control throughout the day)
- Enabling online monitoring of the blood glucose levels of multiple patients in different parts of the facility
- Facilitating close monitoring of glucose levels in very sick patients on room isolation
- Reducing the burden of fingersticks in patients at the end of life

However, facilities' ability to use this technology depends on factors such as

- Facility characteristics (e.g., level of care, staff clinical competency, staffing shortages)
- Clinician knowledge of and familiarity with diabetes technology
- Insurance coverage for CGM
- Patients' overall and glycemic-specific goals of care
- Presence of comorbidities and diabetes complications

Although studies of CGM in PALTC settings are scant, data from the few studies that have been conducted suggest that the technology can identify previously unrecognized hypoglycemia and may improve the detection of both hypo- and hyperglycemic events compared with pointof-care testing.

Continuous Glucose Monitoring

Table 7.3—Continuous glucose monitoring devices		
Type of CGM	Description	
rtCGM	CGM systems that measure and display glucose levels continuously	
isCGM with and without alarms	CGM systems that measure glucose levels continuously but require scanning for visualization and storage of glucose values	
Professional CGM	CGM devices that are placed on the person with diabetes in the health care professional's office and worn for a discrete period of time (generally 7–14 days). Data may be blinded or visible to the person wearing the device. The data are used to assess glycemic patterns and trends. Unlike rtCGM and isCGM devices, these devices are clinic-based and not owned by the person with diabetes.	
Over-the-counter CGM	CGM devices called biosensors, which measure glucose continuously and display the levels at various times, have insights rather than alarms and are indicated for people with prediabetes or with diabetes not on insulin.	

CGM, continuous glucose monitoring; isCGM, intermittently scanned CGM; rtCGM, real-time CGM.

https://tcoyd.org/2022/03/dexcom-g7-gets-the-green-light-in-europe-and-freestyle-libre-3-available-via-nhs-in-the-uk/

https://diabetes journals.org/ca re/issue/48/Su pplement 1

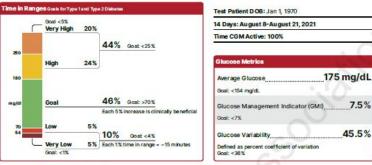


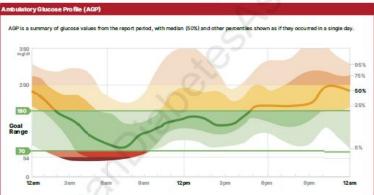
Dexcom G7

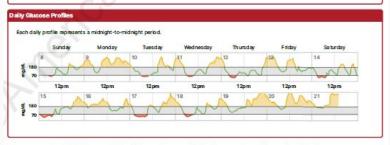


FreeStyle Libre 3

AGP Report: Continuous Glucose Monitoring







rure 6.1-Key points included in a standard ambulatory glucose profile (AGP) report. Adapted from Holt et al. (20).

CGM – Meter Accuracy

Table 7.1—Comparison of ISC	15197:2013 and FDA blood	d glucose meter accuracy	standards

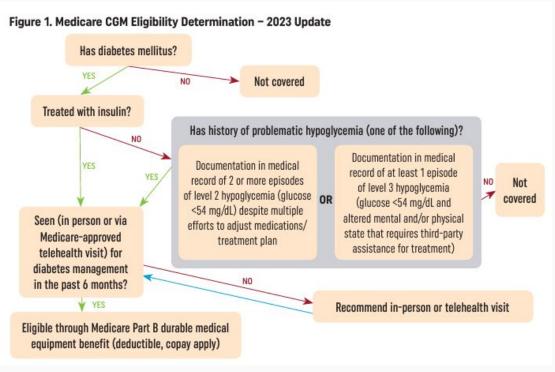
Setting	FDA*	ISO 15197:2013*
Hospital use	95% within 12% for BG ≥75 mg/dL	95% within 15% for BG ≥100 mg/dL
	95% within 12 mg/dL for BG <75 mg/dL	95% within 15 mg/dL for BG <100 mg/dL
	98% within 15% for BG ≥75 mg/dL	99% in A or B region of consensus error grid‡
	98% within 15 mg/dL for BG <75 mg/dL	
Home use	95% within 15% for all BG in the usable BG ranget	
	99% within 20% for all BG in the usable BG range+	

BG, blood glucose; FDA, U.S. Food and Drug Administration; ISO, International Organization for Standardization. To convert mg/dL to mmol/L, see endmemo.com/medical/unitconvert/Glucose.php. *Data shown in the FDA column are from the FDA (298). Data shown in the ISO column are from the FDA (299). †The range of blood glucose values for which the meter has been proven accurate and will provide readings (other than low, high, or error). ‡Values outside of the "clinically acceptable" A and B regions are considered "outlier" readings and may be dangerous to use for therapeutic decisions (300).

https://diabetes
iournals.org/ca
re/issue/48/Su
pplement 1

Medication	Systems affected	Effect		
Acetaminophen >4 g/day Any dose	Dexcom G6, Dexcom G7 Medtronic Guardian	Higher sensor readings than actual glucose Higher sensor readings than actual glucose		
Ascorbic acid (vitamin C), >500 mg/day	FreeStyle Libre 14 day, FreeStyle Libre 2, FreeStyle Libre 3	Higher sensor readings than actual glucose		
Ascorbic acid (vitamin C), >1,000 mg/day	FreeStyle Libre 2 Plus, FreeStyle Libre 3 Plus	Higher sensor readings than actual glucose		
Hydroxyurea	Dexcom G6, Dexcom G7, Medtronic Guardian	Higher sensor readings than actual glucose		
Mannitol (intravenously or as peritoneal dialysis solution)	Senseonics Eversense	Higher sensor readings than actual glucose		
Sorbitol (intravenously or as peritoneal dialysis solution)	Senseonics Eversense	Higher sensor readings than actual glucose		

CGM - Medicare Coverage



https://www.aafp.org/p ubs/fpm/issues/2024/0 100/continuous-glucos e-monitoring.pdf

https://www.aafp.org/family-physician/patient-care/care-resources/continuous-glucose-monitoring.html

CGM – Medicare Coverage

Medicare Eligibility Requirements for Personal CGM

- Diagnosis of diabetes;
- •Beneficiary (or beneficiary's caregiver) has sufficient training using the CGM prescribed;
- •The CGM is prescribed in accordance with its FDA indications for use;
- •The beneficiary meets are least one of the criteria below:
 - Is insulin-treated; or,
 - Has a history of problematic hypoglycemia with documentation of at least one of the following:
 - Two or more level 2 hypoglycemic events (glucose <54 mg/dL) that persist despite multiple modifications to the treatment or medication plan,
 - One level 3 hypoglycemic event (glucose <54 mg/dL) characterized by altered mental and/or physical state requiring third-party assistance for treatment.
 - Seen for diabetes management in past 6 months.
 - For continuing eligibility, all of the above must continue to be met.

CGM – Medicare Coverage

How to Order CGM by Brand

Abbott Freestyle Libre 2 System

Step 1: Complete the <u>Medicare</u>
<u>Standard Written Order</u>. Please note
that even though this order asks for
the prescribed glucose tests per day,
this is no longer a Medicare
requirement.

Step 2: Fax the Order and chart notes to a Freestyle Libre 2 DME supplier listed on the Medicare Standard Written Order link above.

Note: FreeStyle Libre 2 must be used for Medicare, as the FreeStyle Libre 3 is not covered by Medicare (it does not have a separate reader as required by Medicare).

Find information at FreeStyleFoundations.Abbott

Dexcom

Step 1: Complete the <u>Medicare</u>

<u>Detailed Written Order</u>. Check the
box to order the receiver even if the
patient will also use their
smartphone.

Step 2: Fax Order and chart notes to ASPN Pharmacy: (866) 879-8150; they will help determine a participating DME supplier.

You can also find clinic resources on Dexcom's website.

Eversense

Eversense requires that the transmitter be implanted; it is recommended that you seek preauthorization for the implantation procedure before ordering.

Use the <u>Eversense website</u> to find information on ordering or becoming an Eversense provider.

Medtronic CGM

Reference <u>Medtronic's healthcare</u> <u>professional website</u> for their most current resources.

https://www.aafp.cissues/2024/0100 lucose-monitoring

MEDICARE DETAILED WRITTEN ORDER

EST. LENGTH OF NEED (# OF MONTHS):	ORDER DATE:		
PATIENT INFORMATION			
Patient Name:	Date Of Birth:		
Patient Address:	Phone:		
City/State/Zip:			
Primary Insurance Name:	Primary Insurance Memb	er ID:	
Secondary Insurance Name: Secondary Insurance Member ID:			
PHYSICIAN INFORMATION			
Physician Name:			
Phone #:	Fax #:		
Address:	Hospital/Clinic:		
City/State/Zip:	NPI #:		
STATEMENT OF MEDICAL NECESSITY			
Currently on CGM Therapy?	# SMBG	# Daily Insulin	
Yes No	per day	Administrations:	
Date of Last Visit (Must be within 6 months of this order):		On Insulin Pump?	
Diagnosis Code:		ICD-10 Code:	
Frequently adjusting insulin dosage based on BGM/C	Other		
This document serves as a Prescription and Statemer Dexcom Continuous Glucose Monitoring System. De replacement receiver, and all associated diabetes sug- certify that I am the physician identified on the abort contained in this document is true, accurate and cor	excom sensors, Dexcom replaceme pplies to be provided by Dexcom or ve section and I certify that the med	nt transmitter or Dexcom an authorized distributor. lical necessity information	
Signature:		Date:	

Medicare Detailed Written Order



Instructions

- 1. Complete all fields on this Detailed Written Order.
- 2. Use the Noridian November 2017 Physician Resource Letter (Continuous Glucose Monitors)
- to confirm coverage criteria and medical necessity documentation requirements are met.
- Fax both this order and the patient's most recent medical records that demonstrate coverage criteria are met to a DME supplier that provides the FreeStyle Libre 14 day system.

Patient Information

Patient Name: Date of Birth:					
Phone:	_ Ema	ili:			
Address:	City		State:	ZIP:	
Primary Insurance:	Prim	ary Insurance Member ID:			
Secondary Insurance:	Seco	ondary Insurance Member	ID:		
Notes:					
Physician Information					
Physician Name:		Phone:			
NPI:	Fax	88			
Address:					
Order Date: / /					
K0554 (FreeStyle Libre 14 day Reader)		K0553 (FreeStyle Libre 14 day Sensors)			
1 Reader/1095 Days Length of Need: Lifetime-unless specified otherwise:		1 Unit/30 Days (1 Unit = 1 month of sensors and supplies) Length of Need: Lifetime-unless specified otherwise:			
Diagnosis (ICD10):					
□ E10.9 □ E11.65 □ E10.65 □ E11.8	DE	11.9 🗆 Other:			
Prescribed Number of Glucose Tests Per Da	ay:				
Current Insulin Regimen:	31.0				
☐ Insulin Pump ☐ Multiple Daily Injections-Num	har Dar	Dav:	Other		
				and the second	
I certify that I am the physician identified in the "Phys necessity information is true, accurate, and complete omission, or concealment of material fact may subject capable and has successfully completed or will be train	e to the me to a	best of my knowledge. I dministrative, civil, or crimi	understand nal liability. T	that any falsification he patient/caregiver is	
Physician Signature:		Date	:		
It is ultimately the responsibility of the healthcare profession appropriate diagnosis(es) and code(s) for the patient's cond					

this form will result in coverage or payment by any third-party payer. Each healthcare provider is ultimately responsible for verifying codes,

coverage, and payment policies used to ensure that they are accurate for the services and items provided.

See reverse for Indications and Important Safety Information.

References

- The Post-Acute and Long-Term Care Medical Association (PALTmed). Diabetes Management in the Post-Acute and Long-Term Care Setting Clinical Practice Guideline. Columbia, MD: PALTmed 2024. https://paltmed.org/sites/default/files/2024-08/Diabetes_Text-August22-2024.pdf
- 2. ADA Diabetes Care 2025 Standards of Care, https://diabetesjournals.org/care/issue/48/Supplement_1
- 2023 AACE Consensus Statement: Comprehensive Type 2 Diabetes Management Algorithm, https://www.endocrinepractice.org/issue/S1530-891X(22)X0008-6#
- 4. AAFP CGM Resource Page.
 - https://www.aafp.org/family-physician/patient-care/care-resources/continuous-glucose-monitoring.html

Poll

For admissions paperwork do your facilities use highly trained clinicians to fill in gaps?

- A. Yes
- B. No





Open Forum
Any questions or ideas from the talk?

Share a unidentifiable case to discuss



Driving between Virginia facilities? Get some CME-







https://geripal.org/geripal-podcast/

Registration Open: Are you presenting at a meeting? Let us know!



Accreditation

ADPITUS ACCIDITAD PROVIDEN- INSTANCIONAL ESPITADO SECURIOS	In support of improving patient care, VCU Health Continuing Education is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.
	VCU Health designates this live activity for a maximum of 1.00 AMA PRA Category 1 CreditsTM . Physicians should claim only the credit commensurate with the extent of their participation in the activity.
	VCU Health Continuing Education designates this activity for a maximum of 1.00 ANCC contact hours. Nurses should claim only the credit commensurate with the extent of their participation in the activity.
MPA CATEGORY I	VCU Health Continuing Education has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for 1.00 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

Disclosure of Financial Relationships

Disclosure of Commercial Support:

We acknowledge that no commercial or in-kind support was provided for this activity.

Claiming CE Credit

Submit Attendance

- If you have not participated in a VCU Health CE program in the past:
 - a. Go to <u>vcu.cloud-cme.com</u> to create an account make sure to add your cell phone number
- 2. Once you have registered or if you have participated before:
 - a. Text the course code to (804) 625-4041.
 - b. The course code for today's event is: within 5 days of the event) #####

OR

Complete Evaluation & Claim Credit. (within 60 days of the event)

- 1) Go to https://vcu.cloud-cme.com
- 2) Sign in using email address used above
- 3) Click "My CE"
- 4) Click "Evaluations and Certificates"

Need help? ceinfo@vcuhealth.org

- 1) Open the CloudCME app on your device
- 2) Click "My Evaluations"
- 3) Click the name of the activity to complete evaluation

Thank you for joining us!

Updates and News - See News Updates via email

Next Monthly Forum: Wednesday, January 15, 4-5 pm

Your Calendar Link - In the Zoom Registration Confirmation email you received today, there's a calendar link to update your calendar for future meetings.

On your way out of our meeting today, kindly answer a brief feedback survey.

Stay in touch! Email us at vcoa@vcu.edu

Invite your colleagues! They can register at <a href="https://linear.nlm.nih.gov/linear