UPMC PALLIATIVE AND SUPPORTIVE INSTITUTE

# Palliative Care Pharmacy PHAST PHACT

October 4th, 2018 Vol. 4, No. 37

## TODAY'S TOPIC:

### Let it Go?
**The Management of Diabetes in Older Adults**

## Background:
The estimated overall prevalence of diabetes among adults in the United States ranges from 5.8-12.9% (median 8.4%). More personal health care resources are estimated to be spent on DM than any other condition.

## Importance:
Many palliative care patients suffer from DM. Palliative care providers should be aware of how to manage this disease state, and when these medications should become deprescribing-eligible.

## The Literature:
- Diabetes Care. 2018 Jan;41(Suppl 1):S119-S125.
  11. Older Adults: *Standards of Medical Care in Diabetes-2018*.
  - From: American Diabetes Association (ADA) "Standards of Medical Care in Diabetes"
  - Recommendations:
- Older adults who are otherwise healthy with few coexisting chronic illnesses and intact cognitive function and functional status should have lower glycemic goals (A1C <7.5% [58 mmol/mol]), while those with multiple coexisting chronic illnesses, cognitive impairment, or functional dependence should have less stringent glycemic goals (A1C <8.0–8.5% [64–69 mmol/mol]). C
- Glycemic goals for some older adults might reasonably be relaxed as part of individualized care, but hyperglycemia leading to symptoms or risk of acute hyperglycemic complications should be avoided in all patients. C
  - Table: Treatment goals for glycemia, BP, and dyslipidemia in older adults with DM:

| Patient | A1C goal | Fasting & HS GLUCs | BP | Lipids |
|---|---|---|---|---|
| Healthy | <7.5% | 90-130 mg/dL | <140/90mmHg | Stain unless contraindicated |

**Palliative Care Pharmacy Team:**

Clinical Pharmacy Specialist:
**Jenn Pruskowski,** PharmD, BCPS, BCGP, CPE
pruskowskija@upmc.edu

If you have a topic you would like the pharmacy team to answer, please send your suggestions to: pruskowskija@upmc.edu

|  |  |  |  |  |
|---|---|---|---|---|
|  |  | 90-150mg/dL |  |  |
| Complex/MCC | <8.0% | 90-150 mg/dL 100-180 mg/dL | <140/90 mmHg | Stain unless contraindicated |
| Very Complex/ Poor Health | <8.5% | 100-180 mg/dL 110-200 mg/dL | <150/90mmHg | Consider likelihood of benefit |

Key: MCC: multiple chronic conditions; HS: at bedtime; GLUC: glucose readings

- Different patient categories have been proposed for diabetes management in those with advanced disease: *A stable patient:* continue with the patient's previous regimen, with a focus on the prevention of hypoglycemia and the management of hyperglycemia using blood glucose testing, keeping levels below the renal threshold of glucose. There is very little role for A1C monitoring and lowering. *A patient with organ failure:* preventing hypoglycemia is of greater significance. Dehydration must be prevented and treated. In people with type 1 diabetes, insulin administration may be reduced as the oral intake of food decreases but should not be stopped. For those with type 2 diabetes, agents that may cause hypoglycemia should be titrated. The main goal is to avoid hypoglycemia, allowing for glucose values in the upper level of the desired target range. *A dying patient*: for patients with type 2 diabetes, the discontinuation of all medications may be a reasonable approach, as patients are unlikely to have any oral intake. In patients with type 1 diabetes, there is no consensus, but a small amount of basal insulin may maintain glucose levels and prevent acute hyperglycemic complications.

- Screening for diabetes complications should be individualized in older adults. Particular attention should be paid to complications that would lead to functional impairment. C
- Treatment of hypertension to individualized target levels is indicated in most older adults. C
    - Goal is to avoid agents that cause hypoglycemia
    - Consider metformin (if CrCl > 30 mL/min) – ER formulations may be better tolerated due to GI adverse effects, can also lead to vitamin B12 deficiency
    - If contraindicated to metformin, consider glipizide or glimepiride (not glyburide as it is long-acting and increases risk of hypoglycemia)
    - Repaglinide and nateglinide can also be options, they may be best for patients with post-prandial hyperglycemia
    - DPP-4 inhibitors (sitagliptin) are also appealing as they have a low risk of hypoglycemia or weight gain
    - SGLT-2 inhibitors (canagliflozin) are not strongly recommended, older adults tend to experience a higher rate of volume depletion than their

younger counterparts. There is now CVD benefits for empaglifozin (based on EMPA-REG OUTCOME trial, mean age was 63 years old)
    - GLP-1 receptor agonists (exenatide), there is also CVD benefits with liraglutide (based on LEADER trial, mean age was 64 years old)
- Treatment of other cardiovascular risk factors should be individualized in older adults considering the time frame of benefit. Lipid-lowering therapy and aspirin therapy may benefit those with life expectancies at least equal to the time frame of primary prevention or secondary intervention trials. E
  - *Discussion:* As you can see, there isn't a lot to help guide the management of DM in older adults

## So… What does this all mean Jenn?

- Unfortunately, there are virtually no trials that have examined glycemic control and complications focusing on older adults, so few data exists. Consider the literature to help guide as below
- To add, remember that A1C may not even be accurate in older adults. Anemia and other conditions that impact red blood cell life span (CKD, recent transfusions and erythropoietin infusions, recent acute illness or hospitalizations, or liver disease) can present misleading results
  - Of note: HgbA1C of 8.5% (69 mmol/mol) equates to an estimated average glucose of ~200 mg/dL
- Overall, when considering if these medications are deprescribing eligible, consider the patient's prognosis, and their risk of dehydration and hypoglycemia. There is little information to guide treatment targets or time-until benefit parameters for these medications
- So let those medications go, and everyone eat cupcakes!

Geriatric Considerations:

- Take a look above, this PCP Phast Phact is focused on older adults

## Stay tuned for future PCP Phast Phacts on deprescribing!

**CLINICAL PEARL:**
**In older adults with serious illness consider an HgbA1C goal of <8.5% and attempt to reduce the risk of hypoglycemia as much as possible.**