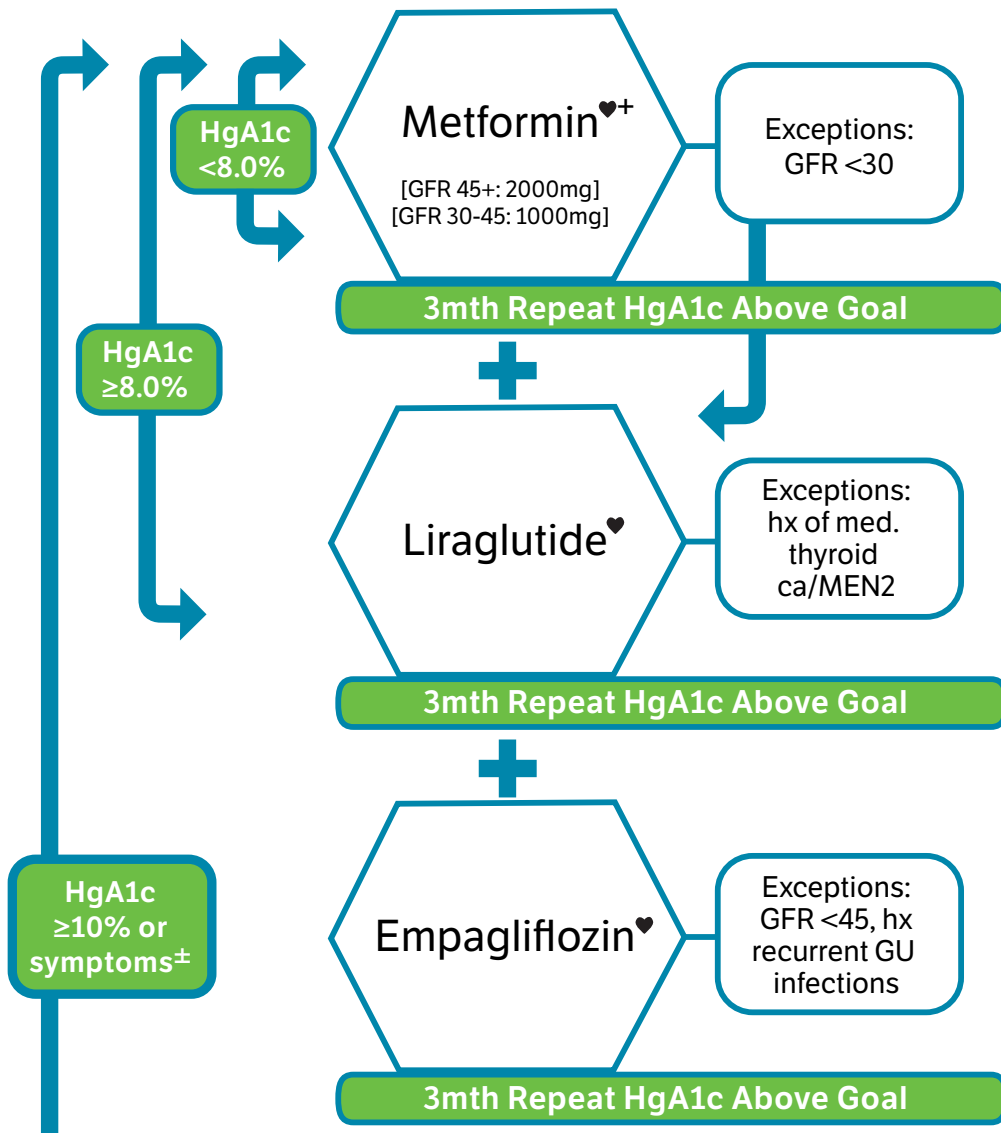


## A New Algorithm



# TOOL: DIABETES MANAGEMENT ALGORITHM

MERCY

Rev. 12/22/17

## Mercy Diabetes Management Algorithm

Diagnosis of Diabetes	A1c ≤ 1.0 over goal	A1c 1.1-2.0 over goal	A1c > 2.0 over goal	Failure to Achieve A1c Goal
<b>Establish Patient-Specific A1c Goal</b>  1. Select Goal A1c 2. If lifestyle modification fails, then select therapeutic column corresponding to desired A1c reduction. 3. Initiate indicated therapy. 4. Follow remaining process steps below.	<b>INITIATE MONOTHERAPY</b>  Metformin (or other 1 <sup>st</sup> line agent) Lifestyle Modification Titrate to Goal Escalate if Failure	<b>INITIATE MONO- or DUAL THERAPY</b>  Add 2 <sup>nd</sup> line agent Maintain Metformin (or other 1 <sup>st</sup> line agent) Lifestyle Modification Titrate to Goal Escalate if Failure	<b>INITIATE DUAL or TRIPLE THERAPY</b>  Add 3 <sup>rd</sup> line agent Maintain 2 <sup>nd</sup> line agent Maintain Metformin (or other 1 <sup>st</sup> line agent) Lifestyle Modification Titrate to Goal Escalate if Failure	<b>INTENSIFY INSULIN or REFER TO ENDOCRINOLOGY</b>  If combination therapy including basal insulin fails to achieve goal, intensify with pre-meal insulin, and/or refer to Endocrinology. Titrate to Goal Refer to Endocrinology

**Process Steps**

- Modification:** Adjust diet and exercise to achieve positive outcomes, potentially delaying or avoiding drug therapy. If patient has maximized lifestyle modification or is unable or unwilling to make necessary modifications, proceed to next step.
- Initiation:** Start drug therapy based on patient's current A1c relative to individual goal.
- Titration:** Increase dose within each "tier" to the maximally tolerated dose or until goal is achieved.
- Escalation:** If A1c goal is still not achieved after dosage titration, escalate to the next tier and add another agent as needed.
- Intensification:** Once all tiers have been maximized, intensify insulin therapy with both basal and pre-meal insulins. Consider referral to Endocrinology.

Reasonable HgbA1c Goals for T2DM	< 7.0	< 7.5	< 8.0	< 8.5
	Uncomplicated Adults	Fit Older	Frail Older w/Co-morbidity, < 10 yrs life expectancy	Very Old

### Diabetes Drug Therapy Options

Drug Class	Route	Hypoglyc. Risk	Weight Gain	CHF	CV Benefit	Typical A1c Change	Avg Cost /30 days	Cost per 1.0 A1c decr/yr
Metformin	Oral	Low	Slight Loss	Neutral	Neutral	1.0-2.0	\$7	\$84
GLP-1 RAs	Inj	Low	Loss	1 <sup>st</sup> Pref*	1 <sup>st</sup> Pref*	0.5-1.0	\$570	\$9,120
SGLT2i	Oral	Low	Loss	1 <sup>st</sup> Pref	1 <sup>st</sup> Pref*	0.8-1.2	\$360	\$4,320
DPP4i	Oral	Low	Neutral	Avoid	Neutral	0.5-0.8	\$350	\$6,461
TZD	Oral	Low	Gain	Avoid	Avoid	0.5-1.4	\$65	\$821
SU	Oral	High	Gain	Neutral	Neutral	1.0-2.0	\$8	\$96
Insulin	Inj	High	Gain	2 <sup>nd</sup> Pref	2 <sup>nd</sup> Pref	1.5-3.5	\$525	\$2,520

GLP-1 RA = glucagon-like peptide 1 receptor agonists (e.g. Victoza, Byetta, Bydureon, Trulicity, Tanzeum, Ozempic)  
 SGLT2i = sodium glucose cotransporter 2 inhibitors (e.g. Invokana, Jardiance, Farxiga, Steglato)  
 DPP4i = dipeptidyl peptidase-4 inhibitors (e.g. Januvia, Tradjenta, Onglyza, Nesina)  
 TZD = thiazolidinedione (e.g. Actos (pioglitazone), Avandia); SU = sulfonylurea (e.g. glipizide, glyburide, glimepiride)  
 \*NOTE: Victoza is preferred GLP-1 RA for CHF and ASCVD; Jardiance is preferred SGLT2i for ASCVD per clinical trials and FDA labeling.