CLINICAL PRACTICE GUIDELINES

PRE-DIABETES & TYPE 2 DIABETES MELLITUS

VISION

To provide a complete strategy to manage Diabetes Mellitus in Northeast Nebraska.

GOAL

To provide education, ongoing care with collaboration between primary care providers, and patient care teams to manage Diabetes Mellitus/A1C and its complications.

OVERVIEW

It has been estimated that the average medical expenses among individuals diagnosed with diabetes is 2.3 times higher than those without diabetes. In an era of increasing health care costs and relative decrease in chronic conditions, proper evaluation is imperative to identify patients who need aggressive treatment or referral to an endocrinologist, whereas others are less concerning.

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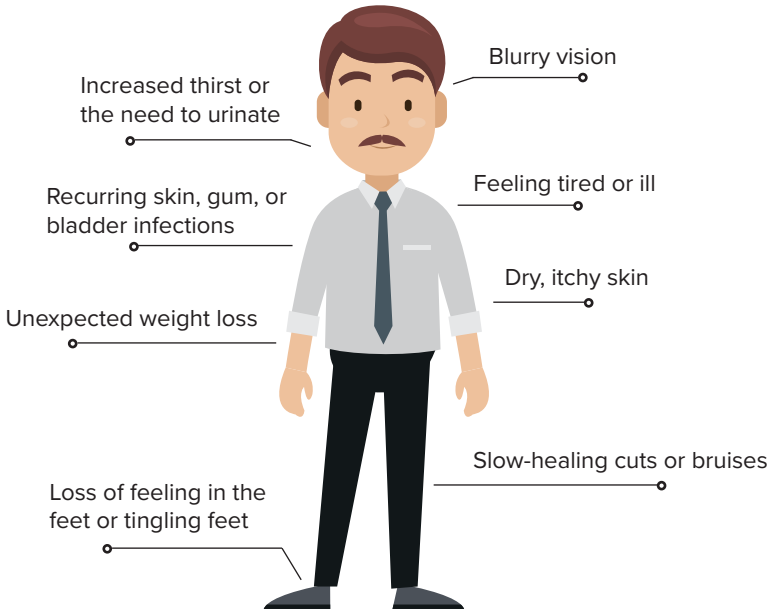
FAITH REGIONAL HEALTH SERVICES

Provider-Hospital Organization



DIABETES RISK STRATIFICATION ASSESSMENT

RISK STRATIFICATION SCORING (Circle patient score)

PATIENT A1C*	POINTS
> 9.0% or unknown	7
8.5% to 9%	6
8.0% to 8.4%	5
7.5% to 7.9%	4
7.0% to 7.4%	2
< 7 %	0

BLOOD PRESSURE	POINTS
Unknown	3
SBP > 160 or DBP > 95	3
SBP 140 to 160 or DBP 90 to 85	2
SBP 130 to 139 or DBP 80 to 89	1
SBP < 130 or DBP < 80	0

STATIN USE/LDL	POINTS
Lipids not available	2
Statin absent and LDL > 100 or non HDL > 130	2
Satin present and LDL > 100 or non HDL > 130	1
Statin absent and LDL < 100	1
Satin present and LDL < 100	0

TOBACCO USE	POINTS
Unknown	1
Current every day smoker	1
Current some day smoker	1
Tobacco positive (pipes, smokeless, etc.)	1
Never smoked or recently quit	0

PHQ-9 SCORE	POINTS
Unknown	3
> 14 (moderately severe to severe depression)	3
10 to 14 (moderate depression)	2
5 to 9 (mild depression)	1
0 to 4 (no depression)	0

SCORING	POINTS	TOTAL
Patient A1C		
Blood Pressure		
Statin Use/LDL		
Tobacco Status		
PHQ-9 Score		

*Patient A1C: Points are based on the widely recognized goal of 7 1/2. In some instances, this goal may not be warranted or safe in which case the goal would be set at 8% and all data sets would be adjusted upward (+1% to each parameter).

RED ZONE
Maximum support needed.
Overall Stratification Score > 6

YELLOW ZONE
Moderate support needed.
Overall stratification score 3 to 6

GREEN ZONE
Minimal support needed.
Overall stratification score < 3

DIABETES RISK STRATIFICATION ASSESSMENT

RED ZONE (MAXIMUM SUPPORT NEEDED)

YES	NO	N/A	
			Did you address the patient's needs to change? If so, what stage is the patient?
			Did you address any known community barriers? If so, what are they?
			Did you enlist a specific visit or phone call follow-up strategy (recommended someone call patient 2 weeks before and after all encounters)? If so, who called the patient?
			Did you enlist a specific "no show" strategy (recommended someone call patient same day if no show)? If so, who called the patient?
			Did you enlist a specific strategy for ED/Admin alerts (recommended someone contact the patient within 24 hours to schedule an appointment and follow-up within 72 hours)? If so, who contacted the patient?
			Did you assist the patient with coordination of other care services during their visit? If so, what did you coordinate?
			Did you address the need for ongoing education and self-management support? • Did you make a referral to a CDE? If so, to whom? • Did you schedule a class? If so, when and where? • Did you set self-management goals with the patient? If so, what are they?
			Did you address the need for increased frequency of visits to the doctor? CDE? Other?

YELLOW ZONE (MODERATE SUPPORT NEEDED)

YES	NO	N/A	
			Did you consider assessing the patient's readiness to change? If so, what stage is the patient?
			Did you consider any known community barriers? If so, what are they?
			Did you enlist a specific visit or phone-call follow-up strategy? If so, who contacted the patient?
			Did you consider the need for education and self-management? • Did you recommend an encounter with a dietitian? If so, who? • Did you schedule a class? If so, when and where? • Did you set self-management goals with the patient? If so, what are they?

GREEN ZONE (MINIMUM SUPPORT NEEDED)

YES	NO	N/A	
			Do you anticipate any future problems with the patient? If so, what are they?
			Did you offer education and self-management support? • Did you offer a class for new or recent onset patients? If so, when and where? • Did you offer an encounter with a dietitian? If so, who? • Did you offer to set self-management goals with the patient? If so, what are they?

INITIAL LAB AND DIAGNOSTIC WORKUP FOR PRE-DIABETES

For incidental finding of fasting glucose 100 - 125, random glucose 150 - 200, or hgba1c 5.8 - 6.4%

INPATIENT	SPECIALTY CLINIC	PRIMARY CARE CLINIC

If not already done: fasting CMP, Lipid panel, HgbA1c, TSH and reflex free T4, CBC
 	
Order dietitian consultation
 	
Assess additional CVD risk factors:
• Known CAD
• Obesity
• Hypertension
• Hyperlipidemia
• Family history of premature CAD
 	
Refer appointment with primary care within 1 to 2 weeks of discharge
 	
Document phone conversation/letter/fax to primary care provider with reason for referral
	If not already done: fasting CMP, Lipid panel, HgbA1c, TSH and reflex free T4, CBC
	
	Refer to primary care provider within 1 to 2 weeks and make sure copies of labs go to primary care provider
	
	Document phone conversation/letter/fax to primary care provider with reason for referral
		If not already done: fasting CMP, Lipid panel, HgbA1c, TSH and reflex free T4, CBC
		
		Educate regarding diet, exercise, weight loss, blood pressure control, lifestyle changes.
		
		Refer to pre-diabetes class
		
		Assess additional CVD risk factors:
		• Known CAD
		• Obesity
		• Hypertension
		  • Blood pressure goal < 140/90
		  • Consider lower blood pressure goal of 130/80 for persons at higher risk for CAD
		• Family history of premature CAD
		
		Repeat fasting glucose and HgbA1c every 3 to 6 months.

INITIAL LAB AND DIAGNOSTIC WORKUP, AND INITIAL TREATMENT, FOR TYPE 2 DIABETES

For incidental finding of fasting glucose > 125, random glucose > 200, or HgbA1c > 6.4%

INPATIENT

If not already done obtain fasting CMP, Lipid panel, HgbA1c, TSH and reflex free T4, CBC, and microalbumin

Consult Hospital Medicine for management if attending is a specialist (cardiologist, surgeon, etc.)

Order dietitian consultation

Begin glucose monitoring in the a.m., before meals, and bedtime

Begin diabetes self-management education - glucose monitoring, diet, exercise, weight loss, lifestyle changes, medication adherence

Initial treatment based on Initial Pharmacologic Treatment Guidelines*

Assess and treat blood pressure according to guidelines under primary care clinic in the far right column.

Refer for outpatient diabetes education on discharge

Document phone conversation/letter/fax to primary care provider with reason for referral

Assess additional CVD risk factors:

- Known CAD
- Obesity
- Hypertension
- Hyperlipidemia
- Family history of premature CAD

SPECIALTY CLINIC

If not already done obtain fasting CMP, Lipid panel, HgbA1c, TSH and reflex free T4, CBC, microalbumin

Refer to primary care provider within 1 to 2 weeks and make sure copies of labs go to primary care provider

Document phone conversation/letter/fax to primary care provider with reason for referral

PRIMARY CARE CLINIC

If not already done, obtain fasting CMP, Lipid Panel, HgbA1c, TSH and reflex free T4, CBC, microalbumin

Begin diabetes self-management education – glucose monitoring, diet, exercise, weight loss, lifestyle changes, medication adherence

Give patient glucometer and instruct on use and record-keeping

Refer for outpatient diabetes education

Refer patient to optometrist/ophthalmologist for diabetic eye exam at the time of diagnosis and annually thereafter.

Assess additional CVD risk factors:

- Known CAD
- Obesity
- Hypertension
- Hyperlipidemia
- Family history of premature CAD

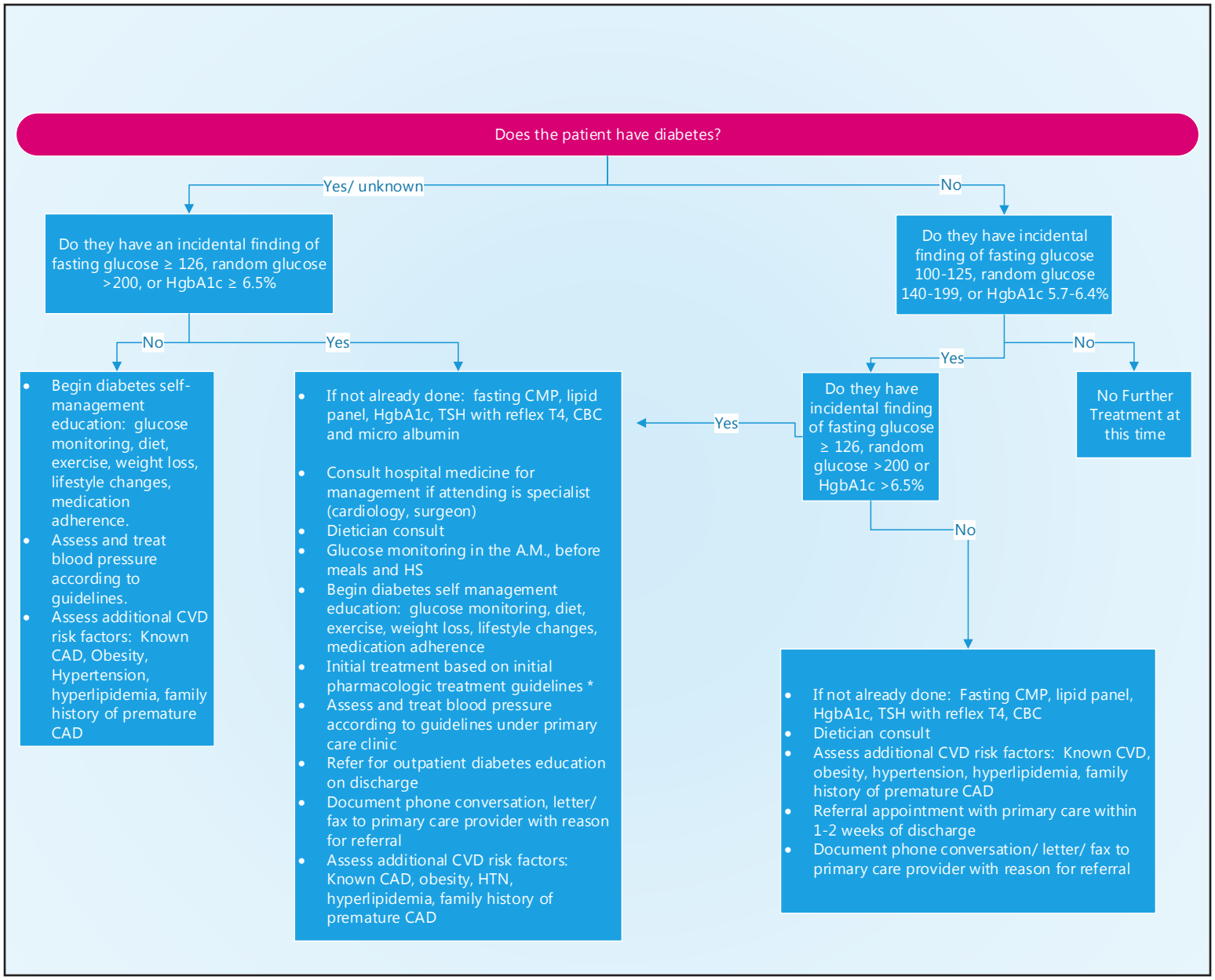
Blood pressure guidelines

- Orthostatic BP performed during initial evaluation of hypertension and yearly thereafter
- SBP > 120 and/or DBP >80, lifestyle intervention as per #2 above; DASH diet
- Office based SBP > 140/90, pharmacologic treatment indicated
  - Patient should be instructed to monitor blood pressures at home
  - ACE Inhibitor or ARB first line treatment for hypertension in patients with diabetes
  - Thiazide diuretics and dihydropyridine CCBs also recommended
- Office based BP > 160/100 should be initiated on 2 drugs or a single pill combination of the above classes of antihypertensive drugs.
- Blood pressure goal of < 130/80 should be considered for patients with additional CVD risk factors as in #6 above.

Assess psychological stress related to the many self-care responsibilities patients with diabetes have, and refer, if appropriate, for psychotherapy and/or psychiatric intervention.

INITIAL PHARMACOLOGIC TREATMENT GUIDELINES

1. For highly motivated patients with HgbA1c < 7.5%, a 3-6 month trial of lifestyle modification before initiating pharmacologic therapy is reasonable.
2. For HgbA1c 7.5 - 8.5%, Metformin generally first-line for glycemic control. Titrate dose, starting with 500 mg with evening meal, then, if tolerated well, a second dose with breakfast. Dose should be increased slowly, one tablet every 1 - 2 weeks for maximum of 1000 mg BID. If eGFR < 45 metformin is not recommended.
3. Consider SGLT2 inhibitor (empagliflozin/Jardiance) or GLP-1 analogue (liraglutide/Victoza) for patients with additional CVD risks.
4. If LDL-C > 70, prescribe moderate intensity statin (high intensity if additional CV risk factors present)
5. If LDL-C > 70, consider moderate intensity statin, especially if patient has additional CV risk factors. May use ASCVD Risk calculator for ages 40-75. 10 year risk > 7.5% indicates need for statin therapy.
6. Begin ACE-I or ARB, dosed appropriately based on blood pressure. No ACE-I/ARB for Cr > 2.
7. Consider low dose aspirin if additional CV risk factors present and no/low bleeding risk.


Does the patient have diabetes?
Yes/ unknown
No
Do they have an incidental finding of fasting glucose ≥ 126, random glucose >200, or HgbA1c ≥ 6.5%
Do they have incidental finding of fasting glucose 100-125, random glucose 140-199, or HgbA1c 5.7-6.4%
No
Yes
Yes
No
Begin diabetes self-management education: glucose monitoring, diet, exercise, weight loss, lifestyle changes, medication adherence.
Assess and treat blood pressure according to guidelines.
Assess additional CVD risk factors: Known CAD, Obesity, Hypertension, hyperlipidemia, family history of premature CAD
If not already done: fasting CMP, lipid panel, HgbA1c, TSH with reflex T4, CBC and micro albumin
Consult hospital medicine for management if attending is specialist (cardiology, surgeon)
Dietician consult
Glucose monitoring in the A.M., before meals and HS
Begin diabetes self management education: glucose monitoring, diet, exercise, weight loss, lifestyle changes, medication adherence
Initial treatment based on initial pharmacologic treatment guidelines *
Assess and treat blood pressure according to guidelines under primary care clinic
Refer for outpatient diabetes education on discharge
Document phone conversation, letter/ fax to primary care provider with reason for referral
Assess additional CVD risk factors: Known CAD, obesity, HTN, hyperlipidemia, family history of premature CAD
Yes
Do they have incidental finding of fasting glucose ≥ 126, random glucose >200 or HgbA1c >6.5%
No Further Treatment at this time
No
If not already done: Fasting CMP, lipid panel, HgbA1c, TSH with reflex T4, CBC
Dietician consult
Assess additional CVD risk factors: Known CVD, obesity, hypertension, hyperlipidemia, family history of premature CAD
Referral appointment with primary care within 1-2 weeks of discharge
Document phone conversation/ letter/ fax to primary care provider with reason for referral

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TEAM MEMBERS

The goal of the provider-hospital organization (PHO) is to standardize treatment across our health systems and providers. Clinical Practice Guidelines (CPGs) and resources are developed to implement evidence-based care and best practice standards within our network.

TEAM ROLES

There is an ongoing commitment from the Faith Regional Provider-Hospital Organization (PHO) to develop and implement current evidence-based CPGs. Educating yourself and your patients on these best practice guidelines helps your office.

TEAM RESOURCES

Patient-centered teams work more efficiently and effectively to provide high quality care that is known to improve health outcomes and patient satisfaction.

DISCLAIMER