Diabetes Management Protocol

AltaMed

**CONFIDENTIAL DRAFT**

USC School of Pharmacy
March 2015-Updates
I. Goals and Objectives

The goal of the clinical pharmacy Diabetes Treatment Program (DTP) is to work with diabetes patients and the primary care team to ensure optimal results from diabetes-related drug therapy. Optimal diabetes treatment outcomes can only be attained through a combination of medication, nutritional, educational, and follow-up interventions. The scope of the DTP includes the management of all major co-morbid conditions such as hypertension and dyslipidemia. The objectives of the DTP are as follows:

A. Following educational sessions with pharmacists, patients will be able to:
   1. Explain, in lay terms, the pathophysiology of diabetes and symptoms of worsening diabetes control.
   2. Describe the consequences of poorly-controlled diabetes, including both hyper- and hypoglycemia.
   3. Explain Therapeutic Lifestyle Changes (TLC).
   4. Recognize and manage hypoglycemia using the ADA Rule of 15.
   5. Demonstrate proper use of a blood glucose monitor and perform self-monitoring of blood glucose (SMBG) at appropriate intervals, if applicable.
   6. Identify the purpose / general mechanism of action, dose, route of administration, frequency, and storage of all medications.
   7. If applicable, demonstrate proper withdrawal, mixing, and administration of insulin.

B. Identify and correct medication misuse, particularly nonadherence, through education and assistance devices / tools.

C. Implement drug therapy adjustments (e.g., addition, substitution, discontinuation, dose adjustment) that will result in improved treatment outcome(s).

D. Continually update providers on new diabetes medications, diabetes treatment-related clinical trials, and guidelines.

II. Protocol

A. Eligibility / Recruitment
All patients with diabetes are welcome to participate in the DTP; however, priority is given to diabetes patients who have not reached therapeutic goals (e.g., A1C > 9%, BP > 140/90).

1. Eligible patients are those diagnosed with diabetes who receive medical care on a regular basis at the clinic.

2. Patients may be recruited by the following methods:
   • Referral from primary care physicians (PCPs), allied health professionals, or health educators
   • Referral from information technology (IT) queries via established triggers
   • Self-referral by patients in response to recruitment posters and flyers

B. Staffing and Duties / Responsibilities
The DTP will be managed by a clinical pharmacist. Other pharmacy-related personnel may include pharmacy residents, clinical pharmacy technicians, and student pharmacists. Primary care providers will be updated and consulted as outlined below. The expertise of all allied health will be utilized, including but not limited to nutritionists/dieticians, Certified Diabetes Educators (CDEs) and case managers. The clinical pharmacist is responsible for ensuring that the elements of care described in this protocol are accurately provided by all pharmacy-related personnel.
1. Clinical pharmacist functions (In accordance with California State Pharmacy Law, Section 4052.1)

   a. Evaluation: The clinical pharmacist may perform routine drug therapy-related patient assessment procedures including vital sign measurement and physical exam (e.g., foot exam, check for peripheral edema, lung sounds, etc.)
   b. Treatment: The clinical pharmacist may initiate, discontinue, and adjust doses of medications for diabetes, hypertension, dyslipidemia, and related therapies as appropriate to reach treatment goals.
   c. Monitoring: The clinical pharmacist may order laboratory tests necessary for monitoring the safety and efficacy of medications for diabetes, hypertension, and dyslipidemia. Examples of these tests include, but are not limited to: A1c, general chemistry, liver function tests, lipid panel, albumin: creatinine ratio, TSH.
   d. Communication with health care team: Legal requirements for communicating treatment changes are fulfilled in section I. As requested, clinical pharmacists will consult with primary care providers and other members of the healthcare team at the frequency and in the format preferred.

2. Technician duties and responsibilities (In accordance with California State Pharmacy Law, Section 4115): The clinical technician will function under the direct supervision of the pharmacist in performing duties and responsibilities that does not require the professional judgment of a pharmacist, which may include, but not limited to:

   a. Administrative and clerical duties
      i. Assist in front end activities pertaining to the patient work flow as necessary
      ii. Prepare and gather relevant information that the pharmacist may need during the patient visit
      iii. Schedule the patients for appointments
      iv. Perform other related duties as assigned
   b. Clinical duties
      i. Assist in back end activities such as vital sign measurement, weight and height
      ii. Gather patient’s prescriptions (if available) and pharmacy information
      iii. Follow-up with patients via telephone to collect information about medication use, monitoring, symptom frequency, etc.
      iv. Perform other related duties as assigned
C. Diabetes Management Checklist

Diabetes Management Checklist for Clinicians

1. EVERY VISIT (AT LEAST TWICE A YEAR):
   - **A1C**: Goal will be patient specific, test quarterly if above goal and semi-annually if at goal. Provide est. avg glucose-

<table>
<thead>
<tr>
<th>A1c value</th>
<th>Estimated Average Glucose (eAG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>97 mg/dL (5.4 mmol/L)</td>
</tr>
<tr>
<td>6%</td>
<td>126 mg/dL (7 mmol/L)</td>
</tr>
<tr>
<td>7%</td>
<td>154 mg/dL (8.5 mmol/L)</td>
</tr>
<tr>
<td>8%</td>
<td>183 mg/dL (10.1 mmol/L)</td>
</tr>
<tr>
<td>9%</td>
<td>212 mg/dL (11.7 mmol/L)</td>
</tr>
<tr>
<td>10%</td>
<td>240 mg/dL (13.3 mmol/L)</td>
</tr>
<tr>
<td>11%</td>
<td>269 mg/dL (14.9 mmol/L)</td>
</tr>
<tr>
<td>12%</td>
<td>298 mg/dL (16.5 mmol/L)</td>
</tr>
</tbody>
</table>

   - **Self-monitoring of blood glucose (SMBG), particularly for insulin users**
     - Provide SMBG log sheet with target ranges
     - SMBG frequency to be determined by clinician in collaboration with the patient

<table>
<thead>
<tr>
<th>Fasting or preprandial BG</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80 – 130 (4.4-7.2 mmol/L)</td>
</tr>
<tr>
<td>Postprandial BG (1-2 hr pp)</td>
<td>&lt;180 (&lt;10.0 mmol/L)</td>
</tr>
</tbody>
</table>

   - **Episodes of hypoglycemia**: Inquire about frequency, time of day, relationship to eating / skipping meals / meds, how resolved (Teach Rule of 15: 15 gms / 1 serving CHO every 15 minutes until BG > 80 mg/dL)

   - **Medication use**: Adherence, ADRs, insulin administration including type & injection site (abdomen preferred)

   - **Blood Pressure (BP)**: Goal < 140/90 mmHg (per ADA 2015)
     - If BP > 140/90 mmHg on 2 or more occasions, at least one BP-lowering medication should be an ACEi or ARB
     - BP goal of <130/80 may be used if patient is younger with long life-expectancy

   - **Weight**: Counsel on diet & exercise if significant recent weight gain
     - Calculate BMI: [Wt (lbs) x 703] ÷ Ht² (inches²)

<table>
<thead>
<tr>
<th>Weight Category</th>
<th>BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal weight</td>
<td>18.5 – 24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>25 - 29.9</td>
</tr>
<tr>
<td>Obese (Class 1)</td>
<td>30 - 34.9</td>
</tr>
<tr>
<td>Obese (Class 2)</td>
<td>35-39.9</td>
</tr>
<tr>
<td>Extreme obesity (Class 3)</td>
<td>&gt; 40</td>
</tr>
</tbody>
</table>

   - **Tobacco use**: In addition to cancer risk, emphasize that tobacco worsens DM control (↑’s insulin resistance); ↑’s risk of MI 3x; ↑’s risk of microvascular complications including nephropathy, neuropathy, erectile dysfunction; refer to health education team when appropriate for assistance

   - **Foot self-examination**: Should be performed daily

2. CHECK UNTIL APPROPRIATENESS EVALUATED:
   - **Statin therapy at a dose sufficient to reduce LDL-C x 30-40% from baseline**
     - Indicated for all primary prevention DM patients 40-75 years old REGARDLESS OF BASELINE LIPID LEVELS. The choice of statin for primary prevention depends on the patient’s age, ASCVD risk, or presence of CVD risk factors
       - **2013 AHA/ACC Guidelines**
         1. Age <40 years:
• If DM + ASCVD <7.5%: Unclear benefit
• If DM + ASCVD ≥7.5%: Unclear benefit
• LDL >190: high-intensity statin

2. **Age 40-75 years:**
   • If DM: moderate-intensity statin
   • If DM and no statin therapy:
     - Estimate 10-year ASCVD risk
       ✓ ASCVD <7.5%: moderate-intensity statin
       ✓ ASCVD ≥7.5%: high-intensity statin
   • LDL >190: high-intensity statin

3. **Age >75 years:**
   • If DM + ASCVD <7.5%: Unclear benefit
   • If DM + ASCVD ≥7.5%: Unclear benefit
   • LDL >190: high-intensity statin

ii. **2015 ADA**
1. For secondary prevention: a high-dose statin therapy
   • Patients >75 years old may receive moderate-intensity statins.
2. For primary prevention in DM patients <40 years old with 1 or more CVD risk factors: a moderate to high intensity statin
   • CVD risk factor (i.e. LDL>100, HTN, smoking, overweight, obesity)

### 2013 ACC/AHA vs 2015 ADA

<table>
<thead>
<tr>
<th>Age</th>
<th>Risk Factors</th>
<th>2013 ACC/AHA</th>
<th>2015 ADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;40 years</td>
<td>DM +ASCVD &lt;7.5%</td>
<td>Unclear benefit</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>DM + ASCVD &gt;7.5%</td>
<td>Unclear benefit</td>
<td>CVD risk factor(s)*</td>
</tr>
<tr>
<td></td>
<td>LDL &gt; 190</td>
<td>High</td>
<td>Overt CVD</td>
</tr>
<tr>
<td></td>
<td>Overt CVD</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>40-75 years</td>
<td>DM + ASCVD &lt;7.5%</td>
<td>Moderate</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>DM + ASCVD &gt;7.5%</td>
<td>High</td>
<td>CVD risk factor(s)*</td>
</tr>
<tr>
<td></td>
<td>LDL &gt; 190</td>
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<td></td>
<td>Overt CVD</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>&gt;75 years</td>
<td>DM + ASCVD &lt;7.5%</td>
<td>Unclear benefit</td>
<td>None</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Overt CVD</td>
<td>Moderate</td>
<td>High</td>
</tr>
</tbody>
</table>

* CVD risk factors: LDL>100, elevated BP, smoking, overweight, obesity

<table>
<thead>
<tr>
<th>Statin intensity</th>
<th>Expected % LDL reduction</th>
<th>Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>&lt;30%</td>
<td>Pravastatin 10-20 mg, Lovastatin 20 mg, Simvastatin 10 mg, Fluvastatin 20-40 mg, Pitavastatin 1 mg</td>
</tr>
<tr>
<td>Moderate</td>
<td>30-50%</td>
<td>Atorvastatin 10-20 mg, Rosuvastatin 5-10 mg, Lovastatin 40 mg, Fluvastatin 40 mg BID, Fluvastatin XL 80 mg, Simvastatin 20-40 mg, Pitavastatin 2-4 mg</td>
</tr>
<tr>
<td>High</td>
<td>&gt;50%</td>
<td>Atorvastatin 40-80 mg, Rosuvastatin 20-40 mg</td>
</tr>
</tbody>
</table>
Aspirin prophylaxis (81mg EC daily)
- Secondary prevention: All patients with history of CVD
- Primary prevention: Consider for DM1 or DM2 patients at high risk for coronary heart disease (e.g., >10% over the next 10 years)
  - Men aged 50+ years or women aged 60+ years who have at least one additional major risk factor (family history of CVD, hypertension, smoking, dyslipidemia, or albuminuria).

Consider ACE-inhibitors (HOPE / Micro-HOPE studies)
- Secondary prevention: All patients
- Primary prevention: > 40 years old + additional CV risk factor (hypertension, family history, dyslipidemia, albuminuria, cardiac autonomic neuropathy, or smoking)

3. LABORATORY MONITORING:

Basic metabolic panel
- If eGFR >60: check annually
- If eGFR 45-60: check every 6 months
- If eGFR 30-44: check every 3 months
- If eGFR <30: check every 3 months and refer to nephrologist

Dilated eye exam:
- Check annually
- Less frequently (e.g., every 2-3 years) if normal, more frequently if progressive

Comprehensive foot exam:
- Check annually
- Inspection, palpation, monofilament test + one of the following: vibration using 128 – Hz tuning fork, pinprick sensation, ankle reflexes, or vibration perception threshold.

Fasting lipid panel:
- Check 4-12 weeks after statin initiation or dose change, then 3-12 months to assess adherence to statin therapy

Albumin:creatinine ratio:
- Check annually for type 1 DM duration of ≥5 years and all type 2 DM
- Consider checking 3-6 months if GFR <45 mL/min/1.73m²
- ACEi or ARB¹ for albuminuria² (albumin:creatinine ratio > 30)

Immunizations up-to-date: influenza, pneumococcal polysaccharide and hepatitis B

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1: Dose of ACEi or ARB must be moderate-maximum range to be consistent with clinical trials
2: Initial diagnosis of albuminuria should be based on minimum 2 of 3 positive tests within a 3-6 month period. Single test result is sufficient for monitoring after diagnosis is established.
D. Clinic Supervision

The medical director, designee, or any medical staff member will serve as supervisor for the DTP, and will be available for consultation.

E. DTP services provided by the Clinical Pharmacist may include the following:

1. Initial / baseline visit
   a. Confirm diagnosis, including type of diabetes (Type 1 vs. Type 2).

   | Table 2: Diagnosis of Diabetes Mellitus (non-pregnant adults) ¹ |
   |-----------------|-----------------|-----------------|
   | 1. A1C ≥ 6.5%. The test should be performed in a laboratory using a method that is national Glycohemoglobin Standardization Program (NGSP)-Certified and standardized to Diabetes Control and Complications Trial (DCCT) assay OR |
   | 2. Fasting plasma glucose (FPG) ≥ 126 mg/dL (7.0 mmol/l). Fast is defined as no caloric intake for at least 8 h OR |
   | 3. 2-h plasma glucose ≥ 200 mg/dL (11.1 mmol/l) during an oral glucose tolerance test (OGTT). The test should be performed as described by the World Health Organization, using a glucose load containing the equivalent of 75 g anhydrous glucose dissolved in water. OR |
   | 4. In patient with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma glucose ≥ 200 mg/dL (11.1 mmol/l) In the absence of unequivocal hyperglycemia, these criteria should be confirmed by repeat testing on a different day. The Oral Glucose Tolerance Test (OGTT) is not recommended for routine clinical use, but may be required in the evaluation of patients with IFG or when diabetes is still suspected despite a normal FPG. |

For Type 1 confirmation: Insulin antibody, C-peptide

| Table 3: Classification of Diabetes Mellitus ¹ |
|-----------------|-----------------|-----------------|
| Age (years) | BMI (kg/m²) | Urine Ketones |
| Likely Type 1 | <30 | <25 | Moderate to Large |
| Indeterminate | 30-40 | 25-27 | Low to Moderate |
| Likely Type 2 | >40 | >27 | None to Low |

b. Family history of diabetes
c. Risk factors for atherosclerosis: smoking, hypertension, obesity, dyslipidemia, and family history
d. Lifestyle, cultural, psychosocial, educational, and economic factors that might influence the management of diabetes

2. Initial and follow-up visits

   a. Review the following baseline laboratory test results if available; consider ordering if not available: A1c, SMBG, Scr, lipid panel, LFTs, Na+, K+, Cl−, urine albumin:creatinine ratio, urinalysis (ketones, protein), CBC, thyroid functions tests (if indicated). If test results suggest a treatable condition that has a negative effect on diabetes or common co-morbidities (e.g., thyroid disorder, infection) the clinical pharmacist will work with the patient and PCP to initiate or adjust appropriate treatment.

   b. Frequency, severity, and cause of ketoacidosis and hypoglycemic episodes, including review of SMBG readings if available.
c. Diet (including EtOH consumption), exercise, & weight history

d. Basic drug therapy-related assessment (e.g., blood pressure, pulses, edema)

e. Evaluate treatment regimen

i. Adherence assessment: Patient will be instructed to bring all medications (prescription and over-the-counter) to every visit with a clinical pharmacist. Patient will be asked to identify each medication, provide a general mechanism of action, and the route, dose, and frequency of administration. If SMBG, patient will be asked how he/she incorporates readings into DM management. The clinical pharmacist will attempt to identify and resolve any discrepancies between the patient’s use of the medication and the prescribed regimen. Causes for the discrepancies will be identified and resolved (e.g., medication adverse effect, forgetfulness, inconvenience of dosing frequency, etc.) Adherence aids, such as medication boxes and patient dosing charts, will be utilized as needed. Over-the-counter medications that may worsen diabetes control will also be identified and, if possible, an alternative will be recommended.

ii. If indicated, drug therapy adjustments may be initiated in order to reach treatment goals.

f. Drug therapy (See Appendix A)
The drug therapy regimen for each patient will be individualized, considering A1C goal, current medication therapy, lifestyle, eating habits, etc. Since the population of focus for the DTP is primarily poorly-controlled diabetes patients, combinations of oral diabetes medications and insulin with or without oral diabetes medications will be frequently used. The decision to initiate insulin therapy will take into consideration the patient’s ability to manage insulin storage, preparation, and injections, as well as age, comorbidities, comorbid conditions, risk of hypoglycemia, and other conditions which may warrant caution. In general, insulin will be a consideration for any patient who presents with an A1C ≥ 9%.

g. Patient Education: Provide instruction, both verbally and in writing, on the following topics:

i. General pathophysiology and diagnosis, including signs and symptoms of hyperglycemia.

ii. Detection and management of hypoglycemia.

iii. Sick day glucose management.

iv. Importance of lifestyle management including nutrition, ethanol abstention, exercise and weight management.

v. Purpose and common adverse effects of each medication prescribed, and importance of adherence.

vi. Self-monitoring of blood glucose (SMBG).

vii. Importance of contacting assigned clinical pharmacist if any change occurs in medication regimen, including both prescription and over-the-counter drugs.

h. Subsequent pharmacist follow-up can be made through clinic visit, home visit, or telephone depending on the needs of the patient.

F. Patient Education Materials and Supplies

1. Commercially available, unbiased literature reinforcing the information listed in the part 2.f. of the section II.E. will be provided as available from government organizations, pharmaceutical companies, and pharmacy school publications.

2. Supplies

a. Blood glucose monitor & test strips
• Patients on Oral Agents: In general, no study to date has found an association between SMBG for patients receiving oral diabetes medications and improved glycemic control. However, SMBG may be beneficial for a limited time period for:
  o initiation of therapy and/or active adjustment of oral agents
  o prevention and detection of hypoglycemia when symptoms are suggestive of such, or if documented hypoglycemia unawareness
  o detection of hyperglycemia when symptoms or urine glycosuria (for the occasional patient using urine test strips) are suggestive

• Patients on Insulin
  o The frequency of monitoring should be individualized based on the frequency of insulin injections, hypoglycemic reactions, level of glycemic control, and patient/provider use of the data to adjust therapy.
  o A combination of pre- and postprandial tests should be considered. Frequency of testing is patient dependent; in general the goal is to minimize frequency of testing (e.g., BID), although more frequent testing may be recommended during insulin initiation or fine-tuning of dosing (e.g., up to 4 times per day).

  b. SMBG diary / log (See Appendix B)
  c. Medication pill box (for selected patients)
  d. Patient-specific medication dosing chart

G. Documentation

All information related to each patient care encounter will be entered into the NextGen electronic health record within 24 hours of the encounter. This communication fulfills the legal responsibility that the clinical pharmacist has in regards to conveying treatment changes to the primary care provider and other members of the healthcare team (California State Pharmacy Law, Section 4052.2)

H. Performance Data Reporting

Quality improvement reports will be generated at quarterly or other specified frequency focusing on metrics aligned with national standards (NQF, NCQA) such as A1C for diabetes and blood pressure for hypertension.

I. Suspension of patient care

Since the purpose of the DTP is to work with the most challenging patients, all efforts will be made to retain patients in the program. Patients who miss appointments will be contacted by a clinical pharmacy technician and/or other clinic personnel involved in rescheduling missed appointments for rescheduling. As an alternative to in-clinic visits, follow-up with patients may be conducted by phone or through selective home visits depending on each patient’s circumstances. In rare cases, patients may be suspended from the DTP if they behave in a manner that is threatening to the safety of the clinical pharmacy team members.

J. Exit Criteria

In general, patients who meet all treatment goals will be exited from the DTP and continue with ongoing usual care from the medical home. Some examples of exit criteria include the following:

1. Type 2 diabetes with two consecutive A1C results at goal, at least 2 months apart. If clinical pharmacist believes that patient’s self-management is fully established and no further education is needed, one A1C result at goal would be sufficient. While most patients will have an A1C goal of < 7%, the goal may be higher (e.g., < 7.5 – 8%) for patients at high
risk for hypoglycemia, long-standing diabetes / older age, established cardiovascular disease, or other conditions that warrant less stringent glycemic control.

2. Type 2 diabetes with two consecutive BP readings < 140/90 mmHg at least 1 month apart.
3. Type 2 diabetes on appropriate-intensity statin regimen
4. All of the above conditions treated with appropriate drug therapy as per current national treatment guidelines and literature evidence

Patients who may remain in the DTP, in agreement with the primary care provider, despite meeting treatment goals include:

1. Patients undergoing major medication changes
2. Patients requiring frequent follow-up to assure adherence with treatment regimen
Appendix A: Medication Therapy for Glycemic Control

Table A-1: Oral Diabetes Medications

| 1. Alpha-Glucosidase Inhibitors* |
| 2. Biguanides / Biguanide Combinations |
| 3. Dipeptidyl peptidase-4 (DPP-4) inhibitor or incretin enhancer |
| 4. Meglitinides |
| 5. Sulfonylureas |
| 6. Thiazolidinediones (TZDs) |
| 7. SGLT2 Inhibitors |

Others*

1. Bile acid sequestrant - Colesevelam
2. Dopamine agonist – Bromocriptine

Table A-2: Insulin

1. Intermediate-Acting
2. Long-Acting
3. Mixed
4. Rapid-Acting
5. Short-Acting

Table A-3: Non-insulin Injectables

1. Amylin analog*
2. Glucagon-Like Peptide-1 (GLP-1) Receptor Agonist or Incretin mimetic

*Currently, there is no strong recommendation to utilize these agents due to modest efficacy and/or intolerable side effects

General treatment issues:

1. A diet & exercise regimen may be the appropriate initial management approach for patients with new onset Type 2 DM depending on severity of symptoms, laboratory test findings, psychosocial evaluation, and overall health status. Proper nutrition, exercise, and lifestyle modifications must be emphasized to all diabetes patients. However, since most patients referred to the DTP will be poorly controlled, the patients managed by the DTP will almost always require drug therapy interventions.

2. Initial drug therapy for Type 2 DM is usually a biguanide. Goal is to titrate diabetes medication dose based on patient’s response to therapy, medical conditions and the A1C goal set by the clinician.

Metformin Renal Dosing Recommendations per ADA:

<table>
<thead>
<tr>
<th>eGFR (ml/min/1.73m²)</th>
<th>Dosing</th>
<th>Monitoring</th>
<th>Initiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥60</td>
<td>Unchanged, max dose 2550 mg/day</td>
<td>Monitor renal fxn every yr</td>
<td>Unchanged</td>
</tr>
<tr>
<td>45-59</td>
<td>Unchanged</td>
<td>Monitor renal fxn every 3-6 mo.</td>
<td>Initiate with caution</td>
</tr>
<tr>
<td>30-44</td>
<td>Use lower dose (limit to 50% of maximal dose)</td>
<td>Monitor renal fxn every 3 mo.</td>
<td>Do not initiate</td>
</tr>
<tr>
<td>&lt;30</td>
<td>Discontinue metformin</td>
<td>Do not initiate</td>
<td></td>
</tr>
</tbody>
</table>

Contraindications per package insert: Serum creatinine (Scr) ≥1.5 mg/dL in males, ≥1.4 mg/dL in females, acute or chronic metabolic acidosis, and/or radiologic studies involving IV administration of iodinated contrast dye

3. For patients with very high baseline A1C (e.g., ≥9%), initial drug therapy considerations include combination drug therapy with metformin and/or insulin, depending on the patient’s clinical circumstances.

4. Carefully selected individuals may benefit from three-drug oral hyperglycemic therapy based on clinical judgment.
5. Initiating and titrating insulin will be based on patient specific parameters, response to therapy and avoidance of hypoglycemia.
Appendix B: Blood Glucose Monitoring Schedule for: ____________________________  Date _______________

Medications:

Please check blood sugar at the following times:

<table>
<thead>
<tr>
<th>Date</th>
<th>Breakfast</th>
<th>Lunch</th>
<th>Dinner</th>
<th>Bedtime</th>
<th>Comments / Foods / Snacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target (mg/dL)</td>
<td>Before</td>
<td>1-2 hrs after</td>
<td>Before</td>
<td>1-2 hrs after</td>
<td>Before</td>
</tr>
<tr>
<td>80-130</td>
<td>&lt;180</td>
<td>80-130</td>
<td>&lt;180</td>
<td>80-130</td>
<td>&lt;180</td>
</tr>
</tbody>
</table>

KNOW YOUR “ABC’s”:

A: A1C is a measure of blood sugar control over the past 2 to 3 months. My A1C goal is ≤ ____%. My current A1C is: ____%

B: My Blood pressure goal is < 140 / 90 mmHg. My current blood pressure is: ____ / ____ mmHg

C: My optimal statin therapy for LDL-Cholesterol (the “bad” cholesterol) is ____________ statin. My current LDL-cholesterol is: ___ mg/dL
General References:

1. American Diabetes Association Standards of Medical Care in Diabetes, 2015. Diabetes Care 2015;38 (S1): 54


Approved:

(Physician Name, Title)  Date