Appendix 1

TEAMcare -Collaborative Treat to Target Recommendations for Depression, Diabetes and Coronary Heart Disease (CHD) Intervention

Note: This tool is adapted from evidence-based clinical guidelines. It does not take the place of medical orders. Changes in medication dosage are documented in EPIC and are signed by the MD. All plans, interventions, and outcomes of medical care must be appropriately documented in EPIC.

Eligibility Criteria: Patients can be included if: they're currently enrolled in GHC (and have been for the past 6 months), they are 18-80 years old, have diagnosis codes for diabetes or coronary heart disease, have at least one measure of poor disease control (LDLc > 130, BP > 140/90 or $HbA_{1c} \geq 8.5$) and meet criteria for depression (PHQ-9 $\geq$ 10).

Exclusion Criteria: Patients are excluded if their systolic BP >200 or their diastolic BP > 115; if they have ICD 9 codes indicating alcohol or substance abuse, bipolar disease, schizophrenia, or end-stage renal disease (dialysis); are taking antipsychotic medications or lithium; are enrolled in Hospice or are living in a SNF. or are currently managing by the Clinical Pharmacists (metformin therapy, lipid therapy or BP therapy).

1) Nurse Care Manager (NCM) Interventions for all patients to include:

_____Encourage patient to sign up for electronic messaging with their primary care team for MyGroupHealth (i.e. electronic communication with physician).

_____Encourage Medication Adherence, by discussing medication's desired effect and dosage when first ordered and by inquiring about side effects and adherence at each visit and encouraging the use of medication reminder tools.

BEHAVIORAL ACTIVATION FOR HEALTHY LIFESTYLE CHANGES

Smoking Cessation. Goal: Quit.

- **NCM** to discuss behavioral activation and smoking cessation strategies. **NCM** can refer to smoking cessation program.

Nutrition Goal: maintain weight or 5% weight loss initially (if overweight), progress to greater weight loss if needed and able; self-described decrease in intake of saturated fats, sweets, and salt and a diet high in fruits, vegetables, whole grains and nonfat dairy products.

- **NCM** to discuss Healthy Lifestyle changes and their anticipated effects (including the importance of small amounts of weight loss on insulin action), patient interests and readiness to change, and past lifestyle efforts. Brainstorm options w/patient and problem-solve ways to improve nutritional pattern. Details of this discussion incorporated into "My Better Health Plan."

STEP 1: Salt restriction, DASH diet, or ADA, AHA, Mediterranean diet, Weight Watches **OR** other "healthy plan" that patient has had success with in the past or is ready to try.

- **NCM** to discuss behavioral activation strategies, "emotional eating", GHC-supported programs (RD consult or Take Charge if > 20 pounds overweight or Weight Watchers).
- **NCM** to encourage use of diet diary and daily weights.

STEP 2: Carbohydrate counting to be considered when patient beginning on daytime insulin with Aspart given before lunch and dinner.

____**Physical Activity** Goal: increase in current activity, as able, to 30 minutes walking/day or equivalent **OR:**

- **NCM** to elicit patient's current activity level, past lifestyle change efforts, patient interests and readiness to change. Brainstorm patient options and problem-solve ways to increase physical activity. Details of this discussion incorporated into **"**My Better Health Plan".

2) Blood Pressure Goal: BP < 130/80 or _____.

- **NCM** to teach home blood pressure monitoring using optimum technique and ask patient to take BP daily when titrating medications (or weekly—→monthly when medication titration completed).
- **NCM** to discuss indications, benefits and risks of antihypertensive therapy & when to call **PCP Team** (If dizzy or SBP < 110), and **CNS** (concerns after hours or weekends).
- **NCM** to order K+ after 2 weeks if using diuretics or K+ & SrCr after 2 weeks if using ACE inhibitor.
- If ACE inhibitor is not tolerated or patient complains of cough, **NCM** to use GHC HTN Guideline for "Management of Cough Accompanying ACE Inhibitors" for follow-up care discussion with PCP.
- **NCM** to consult with TEAM Care Consultants and PCP if starting antihypertensive medications for patients with evidence of heart failure.
- If starting Beta Blocker, NCM to teach patient to check pulse. If pulse rate < 60, teach patient to hold the Beta Blocker and call PCP team.

STEP 1

_____**Prinzide** 10mg lisinopril/12.5mg HCTZ. ½ pill/day X 2 weeks; 1 pill/day for 2 weeks; 2 pills/day X 2 weeks (diabetes and no evidence of CHD) **OR**

_____**Atenolol** 25mg. ½ pill/day X 1 week; 1pill/day X 1 week; 2 pills/day X 1 week (CHD).

STEP 2:

_____**Add Atenolol** 25mg. ½ pill/day X 1 week; 1pill/day X 1 week; 2 pills/day X 1 week (if not previously started) **OR**

_____**Add Lisinopril** 10mg**.** ½ pill/day X 2 weeks; 1 pill/day for 2 weeks; 2 pills/day X 2 weeks (if not already on Prinzide)

STEP 3:

- Consult with TEAMcare supervisors, consultants and PCP for follow-up orders if needed to bring BP to goal.

3) Cardiac Risk Reduction. LDLc < 100 **OR** _____.

____**Lisinopril** 20mg, ½ pill/day X 2 days; then 1 pill/day

Order: K+, SrCr initially and 2 weeks after goal dose reached, then yearly.

- **NCM** to discuss medication adherence, side effects, and when to stop medication and call (hives or dizzy standing).

____**Lovastatin** For all patients with diabetes ≥55 or patients with ASCVD (peripheral arterial disease or CHD). If LDLc < 140, 20mg in pm w/food. If LDLc > 140, 40 mg in pm w/food.

- Order: lipid panel (non-fasting OK if pt. unable to have fasting level drawn), K+, AST @ 4 weeks, then AST every 6 weeks until reaches target, then fasting lipid panel yearly.
- **NCM** to discuss medication side effects, and when to stop medication and call (muscle aches). **NCM** to order CPK and cc chart note to **PCP** if lovastatin stopped due to muscle aches.

____**ASPIRIN** ASA enteric coated 81 or 325, mg/day (unless contraindicated)

4) Glucose Goal: Weekly average or pre-meal FBG 80- 120 **and** HgAlc < 6.5 OR _____.

- **NCM** to discuss Healthy Lifestyle changes and their anticipated effects, past lifestyle efforts and assess patient interests and readiness to change. Details of this discussion incorporated into My Better Health Plan.

Hypoglycemic Medications

- **NCM** to teach blood sugar monitoring technique and when to call **PCP** (if significant hypoglycemia symptoms, ff BG < 70 or concerns) and when to call **CNS** (if concerns or hypoglycemia after hours or on weekends).
- **Order:** HgAlc quarterly, SrCr

STEP 1: Metformin

Indications: Patients with type 2 diabetes who are doing the best they can with lifestyle changes and have HgAlc and BG levels that exceed targets.

- **NCM** to discuss side effects, their usual course and ways to manage them.

Contraindications: Metformin should not be prescribed if SCr >1.5 mg/dL, creatinine clearance <50 mL/min, age >80, or if patient is a frail elder, abuses alcohol, has severe CHF, or has progressive liver disease.

_____ **Standard Metformin Titration.** 250 mg/day with dinner X 2 days. Then 250 mg twice daily, with breakfast and dinner, for 2–3 days. Then 500 mg twice daily, with breakfast and dinner, for 2 weeks. Titrate metformin slower if GI side effects.

_____Continued Metformin Titration. Take 1000mg Metformin twice daily.

If patient has diarrhea when taking metformin, **NCM** may substitute Metformin in liquid preparation.

STEP 2: Initiation of Late Evening Insulin

Indications: Patients with type 2 diabetes who are doing the best they can with lifestyle changes, are taking full therapeutic doses of metformin and who haven't reached target FBG or HgAlc targets.

_____ **Metformin:** Continue at current dosage if appropriate and tolerated, **OR**:

_____**Initiation of Late Evening Insulin.**

- Teach patient to prepare and inject NPH insulin. Discuss expected action of NPH and when to inject evening insulin (8–9 hours before usual wake-up time). Review symptoms of and treatment of hypoglycemia.
- **Stop insulin titration and discuss with PCP if:** patient has symptoms of hypoglycemia that accompany a low blood glucose level.
- Send a cc'ed chart to **PCP** if patient reaches a dose of 50 units NPH. For doses of 50 units or more, better and more predictable absorption may be achieved by having patient divide the dose and inject half in one site and half in another site.

HS Insulin dosing (as below) **OR** _____**.**

- For patient <200lbs and FBG <200. Begin with 12 units NPH q.h.s
- For patient <200lbs and FBG >200. Begin with 16 units NPH q.h.s
- For patient >200lbs and FBG <200. Begin with 20 units NPH q.h.s.
- For patient >200lbs and FBG >200. Begin with 30 units NPH q.h.s.
- Increase evening NPH dose by 2 units/2 days until am FBG target reached.
- When patient reaches FBG target, encourage them to test BG at least two times pre-lunch, pre-dinner and HS in one week. These results can help determine if daytime insulin is needed.

STEP 3: Initiation of Daytime Insulin

Indications: Patients with type 2 diabetes who: are doing the best they can with lifestyle changes, are taking full therapeutic doses of metformin, and are taking evening insulin doses high enough to result in target FBGs, but continue to have HgA1c and blood sugar levels that exceed targets.

- These insulin dosages are to be given in addition to maintenance HS insulin**.**
- **NCM** to encourage patient test FBG q.d.and ac meals when titrating insulin or at least 4 pre-lunch, pre-dinner and h.s. tests/week.

A) Preferred option: Aspart (Novolog) Before Lunch and Dinner

Rationale for Use: While this approach is more complex than simply adding NPH at breakfast, it may improve overall HbA1c with less weight gain and less hypoglycemia.

Requirements for Managing This Insulin Pattern:

- This dosing regime works best when the patient is willing and able to count meal carbohydrates, as this increases likelihood of getting the most accurate pre-meal Aspart dose requirement. If a patient is unable or unwilling to count carbohydrates, then the simple titration scale (below) should be used.
- Have patient report blood glucose data every 2-4 days after this insulin dosage pattern is begun to assure that titration pattern is working well.

A-1)___Sophisticated Titration of Aspart (Novolog) for the patient who's able to CHO count.
All Aspart should be taken immediately before beginning to eat a meal.
Blood glucose 70-130: 1 u Aspart for every 15 grams of anticipated CHO intake.
Blood glucose 131-160: 1 u Aspart plus 1 unit of Aspart for every 15 grams of anticipated CHO intake.
Blood glucose 161-190: 2 u Aspart plus 1 unit of Aspart for every 15 grams of anticipated CHO intake
Blood glucose 191-220: 3 u Aspart plus 1 unit of Aspart for every 15 grams of anticipated CHO intake.
Blood glucose 221-250: 4 u Aspart plus 1 unit of Aspart for every 15 grams of anticipated CHO intake.
Blood glucose over 250: 5 u Aspart plus 1 unit of Aspart for every 15 grams of anticipated CHO intake.
*** If patient is quite insulin resistant (requires 50 u HS NPH or more), may begin Aspart dosage at 1 u per 10 grams of anticipated CHO intake.
NCM may increase pre-meal Aspart by 2 unites/week as needed to reach targets.

A-2)___Simple Titration of Aspart (Novolog) for the patient who's unable or unwilling to CHO count**.**

- **NCM** to review patient's dietary pattern (usual intake, predictability of meal times and "usual" CHO intake). If patient willing to eat predictable pattern of meal CHO intake or willing to eat "large and small" CHO meals, **NCM** can use CHO intake pattern to craft a Aspart schedule as follows.
  Blood glucose less than 80mg/d: eat first, then take Aspart for estimated CHO intake **at the end** of the meal
  Blood glucose 80-150: Aspart for estimated CHO intake immediately before meal.
  Blood glucose 151-200: 1 u Aspart plus Aspart for estimated CHO intake immediately before meal.
  Blood glucose 201-250: 2 u Aspart plus Aspart for estimated CHO intake immediately before meal.
  Blood glucose 251-300: 3u Aspart plus Aspart for estimated CHO intake immediately before meal.
  Blood glucose over 300: 4u Aspart plus Aspart for estimated CHO intake immediately before meal.
  ***Aspart (Novolog) dose based on giving one unit Aspart per 15 gms of anticipated CHO intake in their usual meal and one unit Aspart per every 50 mg/dl BG >150.

_____ **Follow-Up Titration (if needed)**

- If pre-dinner or h.s. BGs remain elevated, add an additional 2 units Aspart for every 50 mg/dL that the pre-meal BG is above 150.
- If pre-dinner or h.s. BGs remain elevated, titrate the pre-lunch and pre-dinner Aspart up to 2 units per 15 grams carbohydrate.

B) Alternative: Daytime NPH
Indications: This insulin regime can work for patients who are unable to count CHOs or eat predictable amounts of CHOs. However, daytime NPH tends to cause weight gain and can make people hungry and hypoglycemic in the middle of the day. When taken in the a.m., the regimen usually requires that the patient does not omit or delay lunch.

B-1)_____Daytime NPH and Aspart (Novolog) Before Dinner
Indications: This routine can decrease the total dose of NPH needed in the a.m. and lessen the risk of mid-day hypoglycemia.
_____Begin dosage at one-half the h.s. dosage. Increase by 1–2 units every 2–4 days until pre-lunch BG range is within target.
_____If h.s. BG still exceeds target range, add sliding scale Aspart before dinner (as above).

B-2)____Initial Titration of a.m. NPH: dosage equal to one-half the h.s. dosage. Increase by 1–2 units every 2–4 days until pre-lunch BG range is within target.

5) Depression. Goal: PHQ 9 < 5, or at least 50% decrease from baseline in PHQ 9.

- **NCM** to encourage patient to fill out PHQ 9 weekly until reaches a "steady state", then prn.
- **NCM** to discuss behavioral activation methods, medication adherence strategies, rationale for initial and long-term maintenance therapy with antidepressants (Don't decrease dose or stop without checking with NCM or PCP; take regardless of symptoms) and side effects (most disappear @ 2 weeks).
- **NCM** to contact PCP and team psychiatrist if patient has: acute suicidal symptoms, psychotic symptoms, manic symptoms, severe lack of appetite with insufficient oral intake or weight loss, suspected alcohol or drug misuse or severe medication side effects.
- Create **"**My Best Health Plan" initially and update at each visit.

Antidepressant Medication

_____**Citalopram** 10 mg/day X 1 week; then 20mg/day X 1 week. If PHQ 9 hasn't decreased by 50% or more, increase to 30mg/day. At week 4, if PHQ 9 hasn't decreased by 50% or more, increase to 40mg/day.

_____**If two or more negative SSRI trials** or for those patients w/preexisting diabetes-related sexual dysfunction, start Buproprion SR 100mg/day for 1 week; then 100mg 2X/day for a week; then 200mg in am & 100mg in PM. If PHQ 9 at 4 weeks isn't decreased by 50%, increase dose to 200mg BID.

_____ If patient doesn't fit above criteria, if has severe diabetic neuropathy or significant medical or psychiatric symptoms, antidepressant medications to be suggested by Team Intervention Psychiatrist or PCP.