

extra care  
*for* diabetes



**IDEALL  
Health Project**

**Improving Diabetes Efforts Across  
Language and Literacy**

**Automated Telephone Disease Management (ATDM)  
PROTOCOL**

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## A. OVERVIEW

Patients in the Automated Telephone Disease Management (ATDM) arm will be called each week at their preferred day and time for 9 months to complete a survey. Of the approximately 15 survey items administered each week, about 10 of them will remain the same for the duration of the study. Patients will be added to the study at various times, and will start at week 1. The entire study will last approximately 18 months.

## B. SURVEY DETAILS

Prosodie Interactive will receive a pre-recorded message with the patient's first and last names every two weeks for all new patients that have been randomized to the ATDM group. However, patient information should be staggered such that the first calls for the patients randomized into the ATDM arm coincide with the date of the monthly Group Visit. On a particular week, if there are no patients to add to the system, an e-mail stating "no new patient data" should be sent to Prosodie.

The survey questions are available in English, Spanish and Cantonese. All prompt and question files are provided by IDEALL in standard wave format. Some responses also trigger a pre-set skip pattern. Question files are named as per the following examples: Question number 1 for week 1's survey is called w1q1.wav, Question number 5 for week 3's is called w3q5.wav. A table of each question, the variable name, and the range of values can be found under S:\DEAN's\Audrey\ALLrefcodes.xls.

## C. DATA TRANSFER

Prior to a patient receiving his/her first call, the following patient information is provided by IDEALL to Prosodie by placing a comma delimited text file on an ftp site ([ftp information TBA](#)):

- IDEALL Patient ID number (a 4 digit tracking number generated by the IDEALL database for each patient)
- ATDM Patient ID (Two Digit, Year born, only for inbound calls with the same 7 digit login)
- Patient First Name
- Patient Last Name
- Patient's Login Number (Patient's 7 digit phone number)
- Patient's 10-digit phone number (format #####)
- Preferred time to call (Pacific time zone, 24 hour format)
- Preferred day to call (M, T, W, Th, F, Sat, Sun)
- Preferred language (1=English, 2= Cantonese, 3= Spanish)

To ensure patient confidentiality, Prosodie Interactive has reviewed and signed a HIPAA contract.

## D. DAILY CLINICAL REPORT

### *I Overview:*

The Care Manager will receive daily reports for patients who have out of range responses in an Excel spreadsheet. The reports are generated by Prosodie at midnight (12 am) each day and will be sent via e-mail to [atang@medsfgh.ucsf.edu](mailto:atang@medsfgh.ucsf.edu) and [imclean@medsfgh.ucsf.edu](mailto:imclean@medsfgh.ucsf.edu).

There are two types of out of range answers. One, the “Extreme Value,” means the answer is so out of range that it requires a call back by the Care Manager. The other, the “Abnormal Value”, means the answer is out of range, but does not immediately require a call back by our Care Manager. Those answers that are Extreme Values and require a call back appear in **red boldface**. Abnormal values are highlighted in black.

### *II. What a Daily Report looks like:*

Answers for which there are no Abnormal Values or **Extreme Values** do not appear in the daily report template (spreadsheet). On a particular day, a spreadsheet can include daily reports for multiple patients. Each patient’s report can be accessed by clicking one of the tabs located at the bottom of the spreadsheet. The tabs will spell the patient’s name (First, Last).

Prosodie will also generate weekly reports, which will include the answer to every question asked. The Care Manager will not receive these weekly administrative reports, but the reports will be available on the project database. However, if the weekly reports indicate that a patient requires additional administrative follow-up, they will receive a call from a project member.

### III. Sample Daily Report

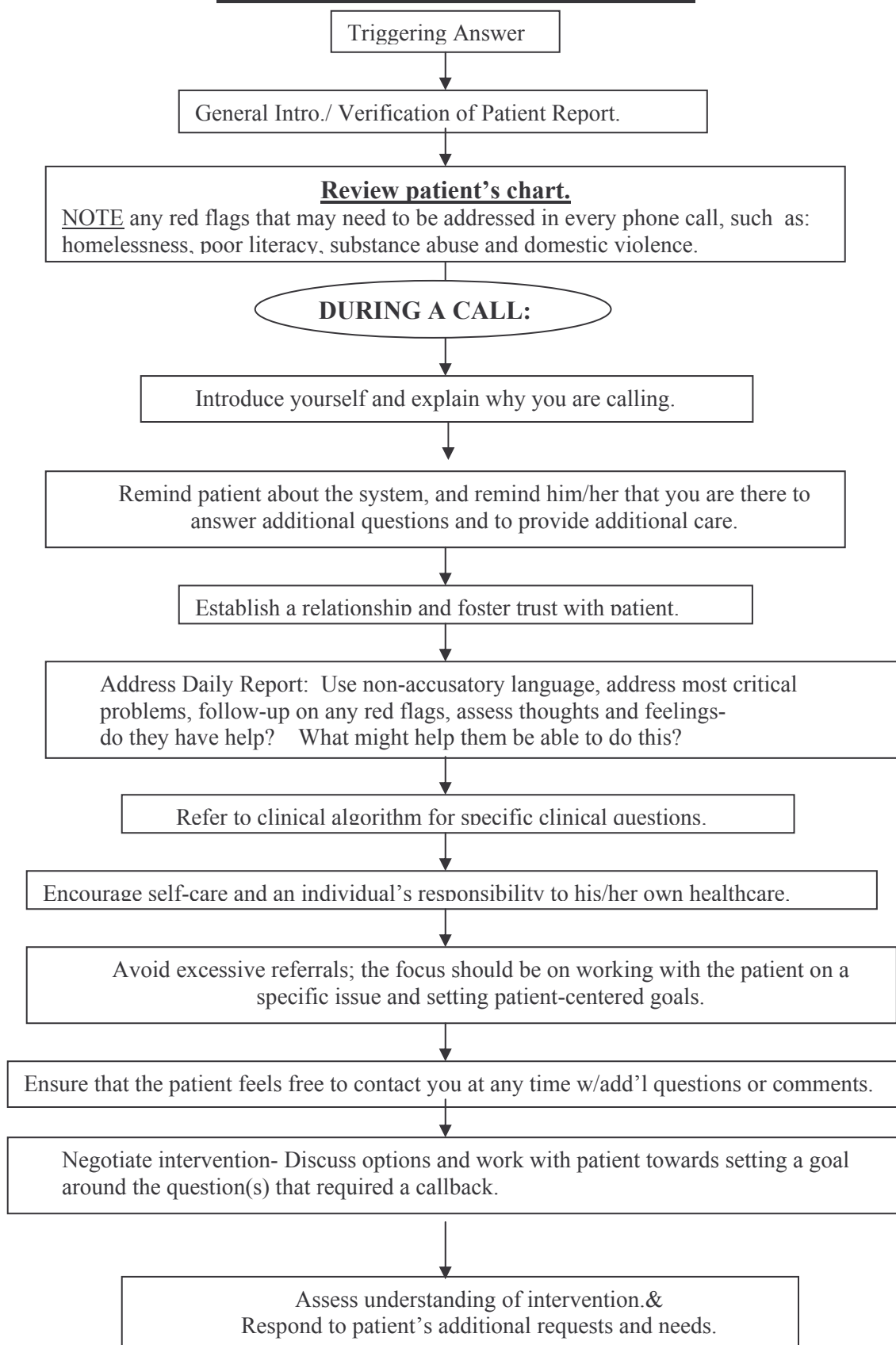
| A  | B                  | C           | D | E | F | G | H | I | J | K | L |
|----|--------------------|-------------|---|---|---|---|---|---|---|---|---|
| 1  | MR #               | 12371       |   |   |   |   |   |   |   |   |   |
| 2  | Last Name          | Delgadillo  |   |   |   |   |   |   |   |   |   |
| 3  | First Name         | Adriana     |   |   |   |   |   |   |   |   |   |
| 4  | Patient ID         | 180         |   |   |   |   |   |   |   |   |   |
| 5  | Language           | 2 = Spanish |   |   |   |   |   |   |   |   |   |
| 6  | Week               | 7           |   |   |   |   |   |   |   |   |   |
| 7  | Preferred Day      | Friday      |   |   |   |   |   |   |   |   |   |
| 8  | Preferred Time     | 9:00:00     |   |   |   |   |   |   |   |   |   |
| 9  | Completion Status  | COMPLETE    |   |   |   |   |   |   |   |   |   |
| 10 | Call Back          | Yes         |   |   |   |   |   |   |   |   |   |
| 11 | W7Q1               | -9          |   |   |   |   |   |   |   |   |   |
| 12 | W7Q2               | 111         |   |   |   |   |   |   |   |   |   |
| 13 | W7Q3               | 2           |   |   |   |   |   |   |   |   |   |
| 14 | W7Q4               | -7          |   |   |   |   |   |   |   |   |   |
| 15 | W7Q4R1             | -7          |   |   |   |   |   |   |   |   |   |
| 16 | W7Q5               | 2           |   |   |   |   |   |   |   |   |   |
| 17 | W7Q6               | 2           |   |   |   |   |   |   |   |   |   |
| 18 | W7Q8               | 0           |   |   |   |   |   |   |   |   |   |
| 19 | W7Q9               | 3           |   |   |   |   |   |   |   |   |   |
| 20 | W7Q10              | 7           |   |   |   |   |   |   |   |   |   |
| 21 | W7Q12              | 0           |   |   |   |   |   |   |   |   |   |
| 22 | W7Q13              | 1           |   |   |   |   |   |   |   |   |   |
| 23 | W5Q13              | 1           |   |   |   |   |   |   |   |   |   |
| 24 |                    |             |   |   |   |   |   |   |   |   |   |
| 25 |                    |             |   |   |   |   |   |   |   |   |   |
| 26 |                    |             |   |   |   |   |   |   |   |   |   |
| 27 |                    |             |   |   |   |   |   |   |   |   |   |
| 28 |                    |             |   |   |   |   |   |   |   |   |   |
| 29 |                    |             |   |   |   |   |   |   |   |   |   |
| 30 |                    |             |   |   |   |   |   |   |   |   |   |
| 31 | Date of Completion | 7/3/2003    |   |   |   |   |   |   |   |   |   |
| 32 |                    |             |   |   |   |   |   |   |   |   |   |
| 33 |                    |             |   |   |   |   |   |   |   |   |   |

### E. GOALS AND PROCEDURES FOR GENERAL PHONE ENCOUNTERS

- A callback by the Care Manager or the Health Educator should be made within 24 to 48 hours after receiving a patient's daily report. This time period is extended if the daily report is generated at the end of the day on Friday.
  - To avoid confusion, patients should be reminded that in the case of an emergency or for immediate assistance, they should not wait for the IDEALL Care Manager's call, but they should call 911 or the GMC or FHC urgent care line instead.
  - Patients should also be reminded that their call might not be answered the same day and that it could be between 3 to 5 days before they receive a call from the Care Manager
- The Care Manager should create his/her own system for patient follow up, i.e. shadow files, as patient charts may not always be readily accessible.

- Education is essential: patients should understand WHY clinical guidelines exist, WHY they should care about reaching those goals, and HOW they can bring about change. Be supportive and non-judgmental.
- Establish short & long-term goals for each patient- clinical and non-clinical. To avoid overwhelming patients, general guidelines should emphasize the need to begin with general goals and treatments and working towards more “aggressive” interventions as time progresses. The focus should be on the ongoing process rather than the immediate “quick fixes.”
- Assess a patient’s family and support network and engage a patient’s family where possible.
- Ensure patients are engaged so he/she will continue to receive the weekly calls and complete the week’s questions
- Give patients a number and name they can call specifically for any questions/ follow-up related to ATDM. That number should be the main IDEALL Project phone number, which will have numbered options.
  - If calls are made to the IDEALL Project number, a separate Protocol/ script will be available with possible RA responses as well as guidelines on how to address such calls.
  - For calls in Cantonese, the bilingual Cantonese-speaking NP/RN will check the messages in mailbox 3, assess the calls, and forward to the appropriate people.
- Document any feedback patients might have about the calls: length, questions, health education, etc. This feedback will be critical for future revisions.

## Initial Phone Encounter Protocol



## F. INITIAL PHONE ENCOUNTER

### *II. Before contacting patient:*

Review patient's chart or shadow file. Note any red flags that may need to be addressed in every phone call such as: homelessness, poor literacy, substance abuse, and domestic violence.

### *III. During a call:*

- 1) Introduction – Introduce yourself to the patient and explain why you are calling
- 2) Reminder about system – Some patients will not remember that part of this intervention includes calls by an IDEALL Care Manager. Remind the patient that you are there to answer additional questions and to provide additional care. Explain that you may call him/her back in the future depending on his/her responses, but that it is also possible that he/she will only hear from you sparingly, if at all, throughout the subsequent 9 months.
- 3) Establish a relationship with the patient. Foster trust so that the patient will feel at ease and answer any questions about his/her behavior patterns or habits truthfully.
  - a) Approach encounter with curiosity and not judgment
  - b) Avoid restrictive language (i.e. “should, must..., can’t”)
  - c) Use open-ended questions i.e. “how are you doing?” “Tell me about...”
  - d) Use positive feedback and acknowledgment
- 4) Address daily report
  - a) Use non-accusatory language so patient will not become defensive i.e. “I noticed that in your answers for this week that...”
  - b) If there are multiple “problems” address most critical, but also ask patient for preference(s) of what they want to address during today’s phone call
  - c) Consider following up on any red flags noted on chart review and/or asking about psychosocial issues
  - d) Assess thoughts and feelings, current practice, and knowledge around report “problems” i.e. “Do you have any comments/questions before we continue?” “What do you normally do about...,” “what do you think about,” “have you heard about...?” “What can you tell me about...?”
  - e) If a patient is not doing something (checking sugar, exercise, following a healthy diet), ask, “What makes it hard to do that?” “Does anything about that scare you?” “Do you have help?” “Do you need help? Who do you think can help you?” “Have you been able to do it before?” “What changed if you were?” What might help you be able to do this?
- 5) Refer to clinical algorithm for specific clinical questions
- 6) Encourage self-care and an individual’s responsibility to his/her own health care. This in turn will discourage patient dependency
  - i) i.e. “I understand what you are going through, but could we wait to see how you are doing next week?”
  - ii) “Will you be seeing your regular doctor? Is this something that you want to bring up to him/her?”
- 7) Avoid excessive referrals- we will have the capability to refer patients to other providers, specialty clinics, and/or support and activity groups within the CHN, but the focus should also be on working with the patient on a specific issue and setting patient-centered goals first.



- a) A resource book will be available with items such as a pharmacy list (with the languages spoken at various pharmacies in San Francisco), exercise options, where to get language-specific diabetes information, etc.
- 8) Ensure that the patient feels free to contact you at any time with additional questions or comments. Inform the patient that a health educator or a pharmacist can also answer some of his/her questions.
- 9) Negotiate intervention – Discuss options with patient and work with him/her towards setting a goal around the questions that required a callback (refer to Appendix A- Action Plans for examples on goal-setting). “I know all this can be too much sometimes, but what do you think we can start working on for this week?”
  - a) If there is a particular “problem” that is critical, for example, a patient whose BS is 400 and never checks his/her BS, negotiate achievable goals i.e. do you think you can check your sugar once or twice this week?
  - b) If patient is having a hard time setting a goal, you can suggest a course of action, but ensure that you come to mutual agreement. “This may work best for you...how does that sound? Do you think you can do this?”
- 10) Assess understanding of intervention- “just so I understand what we are doing here, could you tell me again what we will be working on?” “I want to make sure that I explained everything to you, could you tell me what we talked about today?”
- 11) Respond to patient’s additional requests and needs – “Is there anything else that I can help you with while we’re on the phone?”

## Documentation Process

- Each encounter should generate an ATDM progress note: one copy should be sent to medical records (white), another should be kept for the patient’s shadow files (yellow), and a third should be sent to the PCP (pink).

### Requires Approval from PCP:

Referrals to non-diabetes specialist (does not include podiatry and ophthalmology)

Referrals to Psychosocial Med

### Requires Notification with PCP:

Medication Changes

Any Referrals

Urgent Care visit

Blood Tests

### Communication:

Use LCR for medication changes

Look at PCP’s requests regarding communication (there is a list available in the ATDM binder and on the server)

## G. GUIDELINES FOR RESPONDING TO EXTREME VALUES

| <b>A. Blood Sugar</b>  |   |
|--|---|
| 1. In the last 7 days, how many days did you test your blood sugar by pricking your finger? Press the number of days.  | <ul style="list-style-type: none"> <li>• 0-2: Highlight – If 0, skip to question 4</li> <li>• 3-6</li> <li>• 7</li> <li>• 8-9: Highlight</li> </ul>                         |
| 2. Please enter the number of your last blood sugar, even if it was more than 7 days ago   | <ul style="list-style-type: none"> <li>• Highlight if <math>\leq 70</math> or <math>\geq 180</math></li> <li>• <b>CALL BACK</b> if <math>\leq 59 &gt; 200</math></li> </ul> |
| 3. In the last 7 days, have you had any blood sugar higher than 300?   | <ul style="list-style-type: none"> <li>• 1-Yes: Highlight and <b>CALL BACK</b></li> <li>• 2-No</li> </ul>   |
| 4. In the last 7 days, have you felt like your blood sugar was too high, for example, feeling thirsty, having to pee a lot, or having blurry vision?   | <ul style="list-style-type: none"> <li>• 1-Yes: Highlight</li> <li>• 2-No</li> </ul>  |
| 4a. If you have tried these changes and want to talk to someone about what else you can do, press 1 now. If not, press 2.  | <ul style="list-style-type: none"> <li>• 1: <b>CALL BACK</b></li> <li>• 2</li> </ul>  |
| 5. In the last 7 days, have you ever had any blood sugar lower than 50?  | <ul style="list-style-type: none"> <li>• 1-Yes: Highlight and <b>CALL BACK</b></li> <li>• No</li> </ul>   |
| 6. In the last 7 days, have you ever felt like your blood sugar was too low, for example, feeling dizzy, shaky, or VERY hungry?  | <ul style="list-style-type: none"> <li>• 1-Yes: Highlight</li> <li>• 2-No</li> </ul>  |
| <b>B. Dietary Questions</b>  |   |
| In the last seven days, how many days did you eat sweets or desserts, such as candy bars, sweet cereals, cookies or donuts? Press the number of days.  | <ul style="list-style-type: none"> <li>• 0</li> <li>• 1-3</li> <li>• 4-7: Highlight</li> </ul>  |
| 2. In the last seven days, how many days did you drink more than a cup or can of sweetened drinks like regular sodas, lemonade, fruit juices, or coffee with sugar? Press the number of days     | <ul style="list-style-type: none"> <li>• 0</li> <li>• 1-3</li> <li>• 4-7: Highlight</li> </ul>  |
| 3. In the last 7 days, how many days did your meals include foods such as fresh fruits and vegetables? Press the number of days.   | <ul style="list-style-type: none"> <li>• 7</li> <li>• 4-6</li> <li>• 0-3: <b>CALL BACK</b></li> </ul>   |
| 4. In the last 7 days, how many days did your meals or snacks include high fat foods like butter, chips, mayonnaise, deep-fried foods, lard, or meat with fat or skin? Press the number of days. | <ul style="list-style-type: none"> <li>• 6-7: <b>CALL BACK</b></li> <li>• 3-7</li> <li>• 0-2</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>•</li> </ul>   |

|  |   |
|--|---|
| <p>5. In the last seven days, how many days did you eat "fast-foods" such as McDonalds, KFC, Taco Bell, Taquerias, or Asian fast-food? Press the number of days</p>  | <ul style="list-style-type: none"> <li>• 0-2</li> <li>• 4-7: Highlight and <b>CALL BACK</b></li> <li>• 8-9: Highlight</li> </ul>  |
| <p>6. If you would like to hear about how to eat healthier when you eat out, press 1. If you do not want to hear these options, press 2.</p>   | <ul style="list-style-type: none"> <li>• 1: <ul style="list-style-type: none"> <li>▪ For Asian fast-food restaurants, press 1</li> <li>▪ For Latin American or Mexican food restaurants, press 2</li> <li>▪ For North American fast-food restaurants, press 3</li> </ul> </li> <li>• 2</li> </ul> |
| <p><b>C. Medication Questions</b></p>  |   |
| <p>1. In the last 7 days, how many days did you MISS taking your DIABETES medications, even just one pill or shot? Was it 0 days, 1 day, 2 days, 3 days, 4 days, 5 days, 6 days, or 7 days. Press the number of days that you MISSED taking your diabetes medications.</p> | <ul style="list-style-type: none"> <li>• 3-7: Highlight and <b>CALL BACK</b></li> <li>• 1-2</li> <li>• 0</li> </ul>   |
| <p>2. Do you take any medications to lower your CHOLESTEROL?</p>   | <ul style="list-style-type: none"> <li>• 1-Yes: go on to Q#3</li> <li>• 2-No</li> <li>• 3- Don't know: Highlight and <b>CALL BACK</b></li> </ul>  |
| <p>3. In the last 7 days, how many days did you MISS taking your CHOLESTEROL medications, even one pill? Press the number of days.</p>   | <ul style="list-style-type: none"> <li>• 3-7: Highlight and <b>CALL BACK</b></li> <li>• 1-2</li> <li>• 0</li> </ul>   |
| <p>4. Do you take any BLOOD PRESSURE medications?</p>  | <ul style="list-style-type: none"> <li>• 1-Yes: go on to Q#5</li> <li>• 2-No</li> <li>• 3- Don't know: Highlight and <b>CALL BACK</b></li> </ul>  |
| <p>5. In the last 7 days, how many days did you MISS taking your BLOOD PRESSURE pills, even one pill? Press the number of days.</p>  | <ul style="list-style-type: none"> <li>• 3-7: Highlight and <b>CALL BACK</b></li> <li>• 1-2</li> <li>• 0</li> </ul>   |
| <p>6. Do you take insulin?<br/>If yes, press 1<br/>If no, press 2</p>  | <ul style="list-style-type: none"> <li>• 1-Yes: continue to Q#7</li> <li>• 2-No</li> </ul>  |
| <p>7. The next two questions are very similar, but they are not the same. Please listen carefully. In the last 7 days, how many days did you take ALL of your insulin shots? Press the number of days.</p>   | <ul style="list-style-type: none"> <li>• 0-4: Highlight and <b>CALL BACK</b></li> <li>• 5-6</li> <li>• 7</li> </ul>   |
| <p>8. In the last 7 days, on how many days did you miss even one insulin shot? Press the number of days</p>  | <ul style="list-style-type: none"> <li>• 3 -7: Highlight</li> <li>• 1-2</li> <li>• 0</li> </ul>   |

|  |  |
|--|--|
| <p>9. Is there a pharmacist who speaks your language at the pharmacy where you get your DIABETES medicine?<br/>(Only for Spanish and Cantonese)</p>  | <ul style="list-style-type: none"> <li>• 1-Yes</li> <li>• 2-No: Highlight</li> </ul>   |
| <p>10. We would be happy to talk to you about your diabetes, blood pressure, or cholesterol medications. We can also talk about side effects you might be having, problems paying for these medications, problems ordering your refills, or any other questions you might have about these medicines. If you want us to call you back, press 1. If not, press 2.</p> | <ul style="list-style-type: none"> <li>• 1: <b>CALL BACK</b></li> <li>• 2</li> </ul>   |
| <p><b>D. Exercise Questions</b></p>  |  |
| <p>1. In the last seven days, how many days did you do the kind of exercise that makes you sweat for at least 30 minutes? For example, fast walking, dancing, gardening, or heavy housework? Press the number of days.</p>   | <ul style="list-style-type: none"> <li>• 0-1: Highlight and <b>CALL BACK</b></li> <li>• 3 &amp; 3+</li> </ul>  |
| <p>2. If you want to hear a story about people whose diabetes got better with exercise and how they did it, press 1.<br/>If not, press 2.</p>  | <ul style="list-style-type: none"> <li>• 1-Yes: <ul style="list-style-type: none"> <li>▪ To hear about Mrs. Perez who had diabetes for 7 years and felt she was too sick and too old to exercise, press 1.</li> <li>▪ To hear about Mr. Tan who never seemed to have time to exercise, press 2.</li> <li>▪ To hear about Mr. Louis who lived by himself and always felt too tired and depressed to exercise, press 3.</li> <li>▪ If you do not want to hear these options, press 4.</li> </ul> </li> <li>• 2-No</li> </ul> |
| <p><b>E. Foot Care</b></p>   |  |
| <p>1. In the last 7 days, how many days did you check your feet, <u>including between your toes</u>? Press the number of days.</p>   | <ul style="list-style-type: none"> <li>• 0: <b>CALL BACK</b></li> <li>• 0-6</li> <li>• 7</li> </ul>  |
| <p>2. In the last 7 days, have you noticed any cuts, sores, blisters, or other problems on your feet or have you noticed peeling skin between your toes?</p>   | <ul style="list-style-type: none"> <li>• 1-Yes: Highlight and <b>CALL BACK</b></li> <li>• 2-No</li> </ul>  |
| <p>3. In the last 7 days, how many days have you checked inside your shoes, looking for pebbles or sharp objects? Press the number of days.</p>  | <ul style="list-style-type: none"> <li>• 0: <b>CALL BACK</b></li> <li>• 0-6</li> <li>• 7</li> </ul>  |

|   |  |
|---|--|
| <b>F. Mood and Functional Status Questions</b><br>MONTHLY: (and health ed changes)  |  |
| 1. Now, thinking about the past 30 days, <u>how often</u> have you felt sad or blue?  | <ul style="list-style-type: none"> <li>• 1-Not at all/ a little bit</li> <li>• 2-Some of the time</li> <li>• 3- Most of the time: health education &amp; Automatic <b>CALL BACK</b></li> <li>• 4- Always: health education &amp; Automatic <b>CALL BACK</b></li> </ul> |
| 1a. If you would like someone to call you back about how you are feeling and what you can do, press 1. If not, press 2.   | <ul style="list-style-type: none"> <li>• 1: <b>CALL BACK</b></li> <li>• 2</li> </ul>   |
| <b>G. Other Health Behaviors</b>  |  |
| 1. Have you smoked a cigarette- even one puff- during the past 7 days?  | <ul style="list-style-type: none"> <li>• 1-Yes</li> <li>• 2-No</li> </ul>  |
| 1a. If you've been thinking about quitting smoking and you would like someone to call you back with information about how to quit, press 1. If you are not interested, press 2. | <ul style="list-style-type: none"> <li>• 1: CALL BACK</li> <li>• 2</li> </ul>  |
| 2. Thinking about the last WEEK, on average, how many drinks did you have per day? Press the number of drinks per day.  | <ul style="list-style-type: none"> <li>• 3-9: Highlight and <b>CALL BACK</b></li> <li>• 0-2</li> </ul>   |
| 3. If you have been thinking about cutting back on alcohol and would like some help, press 1. If you are not interested, press 2.   | <ul style="list-style-type: none"> <li>• 1: <b>CALL BACK</b></li> <li>• 2</li> </ul>   |
| <b>H. Appointment Questions</b>   |  |
| 1. In the last 3 months, have you seen your regular doctor?   | <ul style="list-style-type: none"> <li>• 1-Yes</li> <li>• 2- No: provide Health education, go on to Q#15</li> </ul>  |
| 2. If you want us to make an appointment for you with your regular doctor, press 1. If you do not need an appointment, press 2.   | <ul style="list-style-type: none"> <li>• 1-Yes: <b>CALL BACK</b></li> <li>• 2-No</li> </ul>  |
| 3. In the last 12 months, have you been to an eye doctor, not the doctor who makes glasses, but the one who looks into the back of your eye?                                    | <ul style="list-style-type: none"> <li>• 1-Yes</li> <li>• 2-No</li> </ul>  |
| 4. In the last 12 months, have you seen a nutritionist?   | <ul style="list-style-type: none"> <li>• 1-Yes</li> <li>• 2-No: provide Health education, then go to Q16</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>•</li> </ul>  |

|   |   |
|---|---|
| <p>5. If you want us to make an appointment for you with the eye doctor, press 1.<br/>If you do not need an appointment, press 2.</p>               | <ul style="list-style-type: none"> <li>• 1-Yes: <b>CALL BACK</b></li> <li>• 2-No</li> </ul>                           |
| <p>6. If you want us to make an appointment for you with the nutritionist, press 1.<br/>If you do not need an appointment, press 2.</p>             | <ul style="list-style-type: none"> <li>• 1-Yes: <b>CALL BACK</b></li> <li>• 2-No</li> </ul>                           |
| <p>7. In the last 12 months, have you seen a diabetes nurse?</p>  | <ul style="list-style-type: none"> <li>• 1-Yes</li> <li>• 2- No: provide Health education, then go to Q19]</li> </ul> |
| <p>8. If you want us to make an appointment for you with the diabetes nurse, press 1.<br/>If you do not need an appointment, press 2.</p>           | <ul style="list-style-type: none"> <li>• 1-Yes: <b>CALL BACK</b></li> <li>• 2-No</li> </ul>                           |
| <p>9. In the last 12 months, have you been to an eye doctor, not the doctor who makes glasses, but the one who looks into the back of your eye?</p> | <ul style="list-style-type: none"> <li>• 1-Yes</li> <li>• 2- No: provide Health education, then go to Q18]</li> </ul> |
| <p>10. If you want us to make an appointment for you with the eye doctor, press 1.<br/>If you do not need an appointment, press 2.</p>              | <ul style="list-style-type: none"> <li>• 1-Yes: <b>CALL BACK</b></li> <li>• 2-No</li> </ul>                           |

## H. CLINICAL PROTOCOLS

Although it may not be explicitly mentioned in each individual protocol, one of our primary objectives is to encourage patients to generate their own goals. Some patients will be more motivated and confident about their ability to carry out their goals, while others will need additional support. The definition of a “goal” should be flexible. Anything from eating 3 tortillas less a week, to checking their blood sugar 2 times per week, to walking everyday for 30 minutes, should be encouraged. Patients should not be coerced into making a goal that the provider or health educator thinks is important or necessary. Although the provider or health educator may advise a patient as to what could be prioritized, the final goal should be set BY THE PATIENT, and should be something that he/she is interested in doing and thinks he/she can achieve.

The focus is also to engage patients and work in a stepwise manner towards long-term changes to their health. Hence, short-term and long-term goals should be set. Patients should be engaged in problem-solving and decision-making throughout the intervention. As mentioned before, the goal should be focused on the ongoing process rather than the immediate “quick fixes.”

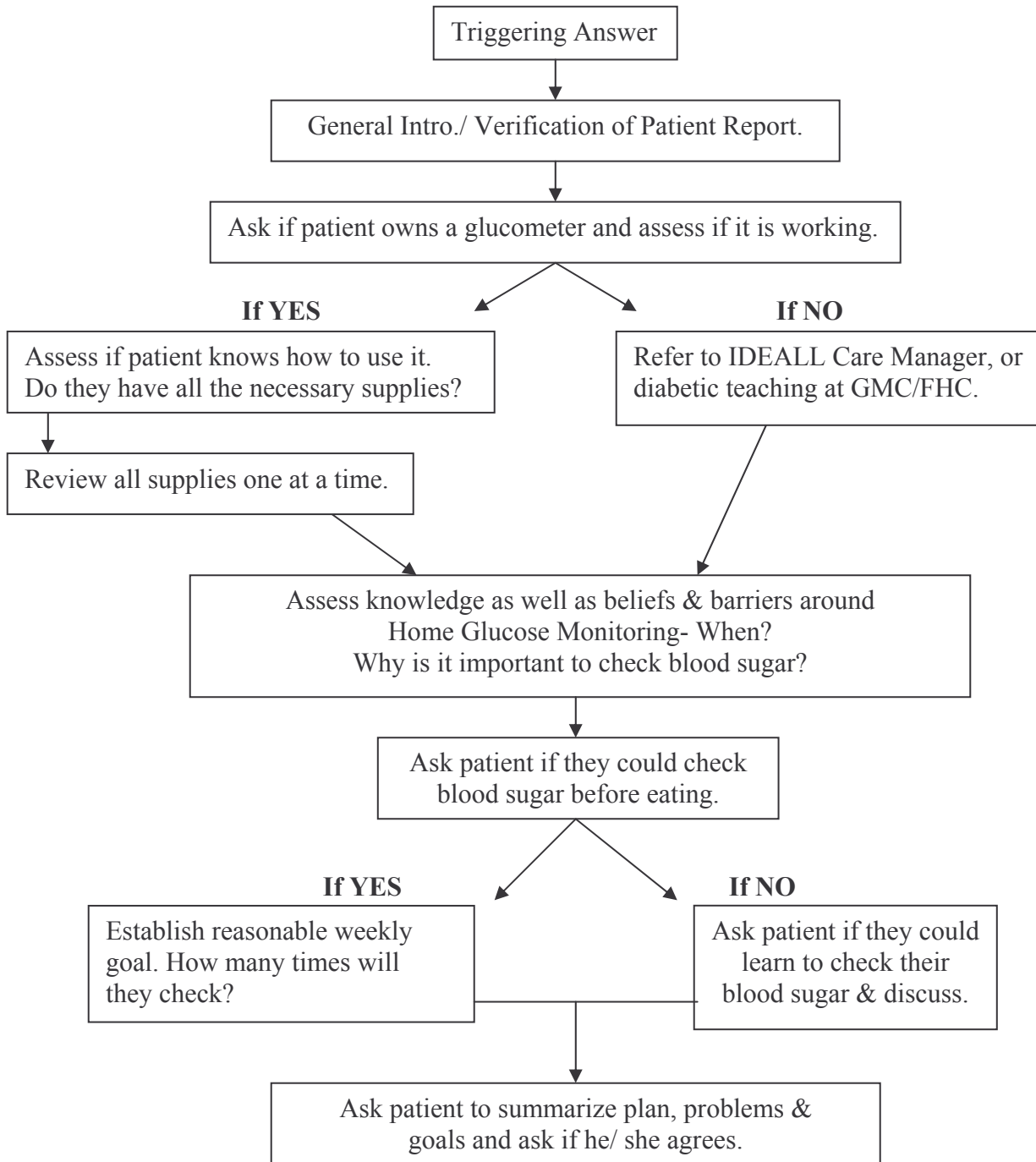
While working with patients to set goals, providers and health educators should use positive feedback wherever possible. Even if a patient does not achieve his/her desired goal for the week/month, he/she is NOT a failure. If a patient cannot carry out his/her goals, this is the time to reassess the goals made, find out what barriers prevented the patient from completing his/her goal, and reframe the goal or task at hand. Help a patient to work on a new goal, or change the past goal into something more attainable.

For examples on how to work with a patient on goal-setting, please see Appendix A on generating action plans.

After the weekly clinical reports are generated, the Care Manager should attempt up to 3 times to follow-up with patient regarding such a report. Number and type of follow-up attempts are determined by the nature of the particular “trigger(s)” noted on the clinical report as well as the clinical judgment of the Care Manager.

- 1) For those patient responses that indicate a *higher degree of clinical urgency*, three phone call attempts should be made (including one message left, if possible). If telephone attempts are unsuccessful, a postcard should be sent, informing patient of our inability to reach him/her and requesting patient to contact IDEALL Project Care Manager directly (See Appendix F). If multiple attempts are unsuccessful, a message is conveyed to the Primary Care Provider.
- 2) Patient responses that indicate a *lesser degree of clinical urgency* may receive fewer than three phone call attempts. An attempt to reach these patients via mail may occur if there is a pattern of repeated unsuccessful attempts via telephone.

## Home Glucose Monitoring Protocol



**\* NOTE: Please see page 18 for Estimate of HbA1C and see page 19 for Recommendations for HGM table.**



## **Home Glucose Monitoring** (very patient dependent)

Callback triggered by concerning response (**concerning = 0- 1**)

### *Goals:*

*To see if patient owns glucometer, and if he/she knows how to use it and has supplies*

*To assess frequency of glucometer use as well as understanding of need for HGM*

*To assess barriers to use of glucometer*

*To educate around importance of HGM*

*To help elicit a plan for how to start checking*

### **Sample opening question/response:**

In this week's call, there were a few questions about checking your sugar. You mentioned you never check your sugar at home. Is that true?

► Do you own a glucometer? Is it working?

**If no glucometer** –bring patient in and teach him/her how to use a glucometer (if patient continues to have trouble understanding how to properly use a glucometer, refer to diabetic teaching at GMC/FHC). The IDEALL project will have a small number of Accu-Chek Advantage glucometer kits that it can dispense to patients regardless of insurance status. Patients receiving glucometers should be part of the CHN system and will need a written prescription. They will also need individual education on how to use a glucometer provided by the IDEALL Care Manager, group facilitators or Diabetes Education Nurse at the GMC or FHC

**Glucometer supplies** (lancets, control solution, pens, and Comfort Curve Strips for the Accu-Chek Advantage meter) will also be available as an OTC med for uninsured patients. Insured patients may be given prescriptions. Medi-cal, Medicare (80% covered) and private insurances are mandated to cover meters and supplies; however, some pharmacies will not take the assignment due to the delay in reimbursements.

**Contact the Diabetes Health Educator at GMC (X8749) with additional questions**

### **If no glucometer, but patient is not interested in one...**

Assess why uninterested and try to address problem- cost? fear of lancet? seems too complicated?

Try to frame home glucose monitoring as a way of preventing worsening diabetes symptoms and long-term complications.

### **If glucometer is not working** – Could you tell me what is wrong with the machine?

If the glucometer is an Accu- Check machine and it is lost or broken, patients can call 1-800-858-8072, 24hours a day, 7 days a week. (Spanish and Cantonese- speaking patients as well)

**If has glucometer** – do you know how to use it? Do you have all the supplies that go with it? Go one-by-one i.e. do you have lancets, etc.

► Assess knowledge around HGM: When are you supposed to use it? Why might it be important to check your blood sugar?

► It's a good idea that you check your blood sugar in the morning before you eat, at least until we get things under control. Could you do that?

**If yes**, work towards a reasonable goal for the week – how many times will patient actually check his/her BS

**If not...**

I understand that it can be difficult to poke yourself every day. Some times though, it is very important to check your blood. For example:

Any time you start any new exercise

Any time you start a new med

Any time you feel the symptoms of hypoglycemia (your BS is too low) or hyperglycemia (your BS is too high).

Could you learn to check your BS during those times? How about 2 times/week

► Ask patient to summarize problems, plan, and goals and ask if s/he agrees.

There is no evidence that blood glucose monitoring in **well-controlled** type 2 DM patients on oral medications is of clinical benefit. If self-monitoring is to be done, a twice-weekly regimen is usually sufficient. *Special situations, such as acute intercurrent illness, frequent hypo- or hyperglycemia, or changes in medication regimen, may justify more frequent monitoring on a temporary basis.*

The goal for SMBG should be about 150 mg/dL. You can get some sense of what the HbA<sub>1c</sub> will be by patterns of finger stick glucose levels. For example:

#### Estimate of HbA<sub>1c</sub>

| Mean Blood Glucose        | Estimated HbA <sub>1c</sub> |
|---------------------------|-----------------------------|
| 120 mg/dL Glucose =       | 6 % HbA <sub>1c</sub>       |
| 150 mg/dL Glucose =       | 7 % HbA <sub>1c</sub>       |
| 180 mg/dL Glucose =       | 8 % HbA <sub>1c</sub>       |
| Every 30 mg/dL increase = | 1 % increase                |

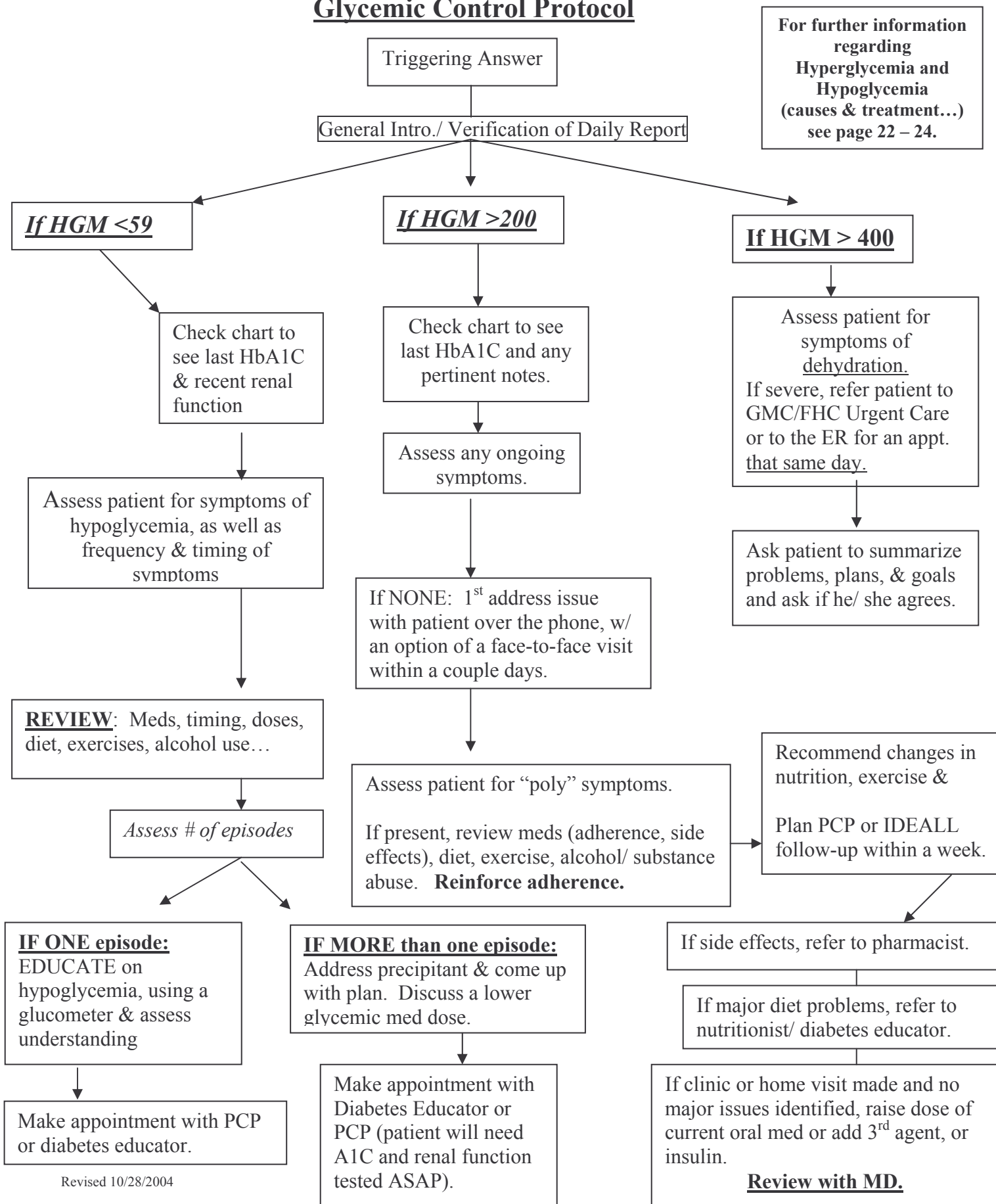
*\*Adapted from the Management of Diabetes Mellitus. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, December 1999. Office of Quality and Performance publication 10Q-CPG/DM-01.*

## Recommendations for HGM

|   |  |
|---|--|
| <b>Patients on Oral Agents</b>                                  | For stable type 2 DM: No more than 50 strips per 150 days. This would allow for twice-weekly testing.  |
| <b>Unstable Patients on Oral Agents (most of our patients!)</b> | <p>More frequent testing (fasting am BS at least) is indicated in the following situations:</p> <ul style="list-style-type: none"> <li>• initiation of new therapy and/or adjustment of oral agents</li> <li>• prevention and detection of hypoglycemia when symptoms are suggestive of such, or if documented hypoglycemia unawareness</li> <li>• detection of hyperglycemia when sx are suggestive.</li> </ul> |
| <b>Patients on Insulin</b>                                      | <p>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.</p> <p>A combination of pre-and postprandial tests should be performed, up to 4 times per day.</p>  |

*\*Adapted from the Management of Diabetes Mellitus. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, December 1999. Office of Quality and Performance publication 10Q-CPG/DM-01.*

# Glycemic Control Protocol



## Glycemic Control

Callback triggered by HGM  $\leq$  59 mg/dl and by HGM > 200 mg/dl.

*Goals:*

*To assess patient understanding of hyper and hypoglycemia and what to do for each*

*To educate patient around issues related to hyper/hypoglycemia*

*To problem solve around patient's glycemic control and to elicit a plan for how to improve glycemic control*

► If HGM <59: *(there are two alternating questions to assess hypo/ hyperglycemic symptoms even if patient did not check his/her blood sugar)*

Check chart to see last HbA1C (if low/normal, take very seriously) and recent renal function.

- Assess patient for symptoms of hypoglycemia (ex: shaking, sweating, confusion, anxiety), frequency of symptoms, and timing of symptoms.
- Review meds, timing, doses; review diet; review exercise/activities, alcohol use or other substances

If clear that this was one episode associated w/distinct precipitant with no other episodes, educate!!!

- What is hypoglycemia; what brings it on; why could be dangerous; sx/signs; how to use glucometer to confirm hypoglycemia in setting of sx, what to do if sx or if low HGM. Assess understanding.
- Make appointment w/PCP or diabetes educator for follow-up

If unclear that this was just one episode or if clear that this was multiple episodes:

- Need to address precipitant (if exists) – i.e. binge drinking, dieting, exercising on empty stomach, meds. Come up with plan. However, since we can't control patient's behavior, it's a good idea to lower their glycemic med doses at the same time (even if they say they're going to stop whatever behavior brings on the hypoglycemia).
- If unclear precipitant, will need to lower med doses THAT day.
- In either instance, follow-up w/diabetes educator or PCP. Patient will need A1C & renal function tested ASAP. (worsening renal function can exacerbate hypoglycemia)

► If HGM >200:

Look through chart for last A1C, notes on poor adherence, substance use, etc.

- If no symptoms, first contact patient by phone, with the option of a face-to-face visit within the next few days. Explain risk of high glucose.
- Assess patient for ongoing "poly" symptoms (-dipsia, -phagia, -uria). If present, review meds (adherence, side effects), diet, exercise, alcohol/substance use. Reinforce adherence.
- Recommend any changes in nutrition, exercise, or other precipitating factors.
- Plan PCP or IDEALL follow-up appt. within a week.

- If side effects, refer to pharmacist.
  - If major diet problems, refer to nutritionist/diabetes educator.
  - If clinic or home visit made and no major issues identified, raise dose of current oral med or add additional oral agent, or insulin. Review w/MD.
- ▶ If glucose VERY high (>400) assess patient for symptoms of dehydration (dizzy, lethargic, weak). Depending on severity of symptoms, refer patient to GMC/FHC Urgent Care or to the ER for an appointment that same day.
- ▶ Ask patient to summarize problems, plan, and goals and ask if s/he agrees.

Our goal (based on recommendations in most diabetes practice guidelines including the ADA) is a HbA1C of 7. However, we know that there are certain subsets of the diabetic population that have contraindications to tight control – the elderly, people with brittle diabetes, patients w/substance use problems, patients with multiple comorbidities and a poor prognosis, people who are anticoagulated. Remember there will also be patients who prefer not to have tight control and if they are averse to your recommendations, they too should have their A1C goals realistically adjusted.

## **HYPERGLYCEMIA**

- *Definition:* Blood glucose  $\geq$  250 mg/dL
- *Causes:*
  - Forgetting to take diabetes medication
  - Overeating
  - Infection/Illness
  - Stress
  - Not exercising
  - Not taking enough diabetes medication
- *Symptoms:* Fatigue
  - Polydipsia
  - Polyuria, especially nocturnal
  - Blurry vision
- *Intervention/Treatment:*
  - Drink plenty of non-caloric fluids
  - Increase self-monitoring of blood glucose (SMBG) before meals and bedtime while awake until blood glucose is  $\leq$  200. If DM is type 1, urine ketones should also be tested
  - Continue to take prescribed diabetes medication
  - Follow meal plan.

**HYPOGLYCEMIA**

- *Definition:* Blood glucose < 70 mg/dL

- *Causes:* Delaying meals  
Not eating enough food  
Too much diabetes medication  
Too much exercise

- *Symptoms:*Weakness  
Rapid heart beat  
Sweating  
Shakiness  
Light-headedness or confusion

- *Intervention/Treatment:*  
If patient unconscious, spouse or friend should  
Call 911

If conscious, treat immediately by eating a food or glucose replacement with 15 to 20 g of fast-acting carbohydrates

Items in this table can be used for immediate treatment of hypoglycemia/low blood sugar. The items in the fruit and other carbohydrate list will relieve the symptoms of hypoglycemia the fastest. In addition to the food items listed, commercial glucose products containing 15 to 20 g carbohydrates may be used (glucose tablets or gels).

| <b>Fruit List</b>                             | <b>Other Carbohydrates</b>                     | <b>Milk</b>            | <b>Starches</b>    |
|---|--|------------------------|--------------------|
| 1/2 cup orange juice                          | 4 oz regular cola (1/2 cup)                    | 1 cup <b>skim</b> milk | 3 Graham crackers  |
| 1/2 cup grapefruit, pineapple, or apple juice | 6 oz regular ginger ale                        | 1/2 cup pudding        | 8 animal crackers  |
| 1/3 cup cranberry, grape or prune juice       | 1 tablespoon honey, brown sugar, or corn syrup |                        | 6 Saltine crackers |
|   | 1/2 cup sherbet                                |                        |                    |

- If on acarbose, treat with a glucose product (tabs or gel equal to 15-20 g carbs) because the naturally occurring carbohydrates in food (sucrose and starches) will not be absorbed.
- Check blood glucose in 15 minutes. If less than 70 mg/dl or symptoms have not subsided, take an additional 15g carbs
- Eat a meal or combination carbs/protein snack within 30 minutes
- If blood glucose is less than 70 and does not increase after eating, seek further medical help.

## WHEN TO SEEK FURTHER MEDICAL ASSISTANCE

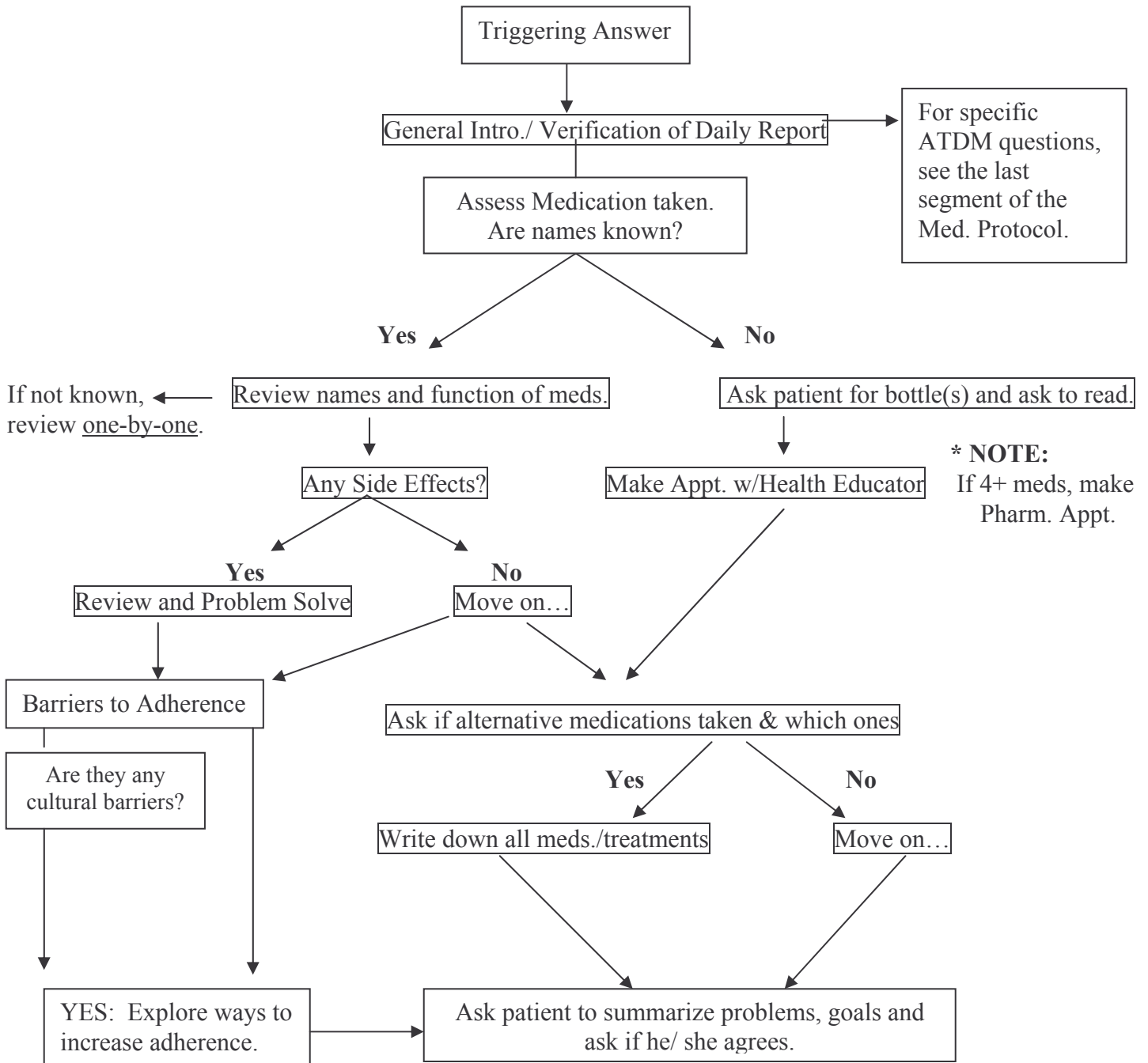
- Persistent blood glucose > 300
- If blood sugar is less than 70 and does not get better when patient eats
- Fever of 101 degrees Fahrenheit or greater
- Nausea and vomiting, especially if no food or fluid intake for more than 5 hours
- Symptoms of shakiness or nervous feeling, lightheadedness, sweating, rapid heart rate or confusion that does not improve after eating
- Any of the following problems on the feet: burns, splinters, stubbed toe, foot trauma, blister, swelling, black or blue discoloration, bleeding, oozing of fluid, or any other sign of infection.

*\*Adapted from the Management of Diabetes Mellitus. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, December 1999. Office of Quality and Performance publication 10Q-CPG/DM-01.*

► See appendix A for specific information on Diabetes Medications



## Medication Adherence Protocol



## Medication Adherence:

To be used if triggered by concerning med adherence answer...

*Goals:*

*To reassess adherence*

*If problem confirmed, to understand reasons for lack of adherence*

*To educate around importance of adherence so that you have patient buy-in*

*To problem solve around barriers to adherence in a way that is practical and doable for the patient*

*If patient is receptive, engage in short/small task goal setting*

### Sample opening question:

In this week's call, there were a few questions about the medications you take. You mentioned you took them "x" days this week. Does that (number) sound (about) right?

### Response:

Sometimes it's hard to start a new medication or to keep taking medicines that you've been on for a long time. Many people get frustrated with or can't afford their medicines. We want to be able to help you figure out a way to take your medicines the right way so that you can stay healthy and active for a long time.

► How many medications are you supposed to be taking right now (prescription and over-the-counter)?

Do you know their names?

**If yes** – run through them slowly, including number of pills taken a day and times taken. Double check in patient's LCR (although the LCR may not be the most updated version) Also, **if yes** – do you know what each of these meds is for? If not, slowly review one by one.

**If no** (the patient does not know their names by heart) – Do you have the bottles and can you get them and read the name/instructions on them? If they demonstrate inability to manage their meds, i.e. they cannot read the name/instructions and/or the instructions are in a language they cannot understand, make appointment w/the IDEALL Care Manager, or Health Educator to review meds and/or help put together a mediset.

- The 1<sup>st</sup> poor adherence response should trigger a phone call.
- If in 2-3 weeks the patient still reports poor adherence (P.A.), they should be given the **option** of an appointment w/IDEALL Care Manager or a phone call from the health educator.
- If patient consistently reports poor adherence problems (3-4 wks), should make an appointment to see the IDEALL Care Manager. The IDEALL Care Manager can invite the IDEALL pharmacist if required in this instance, or in any other situations she sees fit. (Consider using a "flashcard" with actual pills on it as you are explaining medication names and any other information to a patient).

► Do you have any side effects from your medications?

(Be aware that patients might not know what side effects might be, or which are side effects might be specific to each medication)

**If yes**, review them, address any questions, and work with patient to problem solve.  
(See appendix B & C for a list of common side effects for diabetes, cholesterol, and blood pressure medications)

**If no**, move on.

► What makes it hard for you to take them?

If patient does not take them because of cultural barriers... i.e. he/she does not believe that medications work ...

Explore why patient thinks this way

Has patient used medications before? What were they for? Which ones? What happened?

Does patient know anyone for whom these medications “worked”?

Engage family if it is OK with patient

► What would make it easier to take them?

If no patient generated ideas...

Leave them in a place that you see every day (next to tooth brush, etc.)

Taking them at the same time every day (even setting an alarm)

Using a calendar

Pharmacy help +/- mediset

Help from family

It is very important to take your medicines so you can control your diabetes, high blood pressure, etc. and you can stay healthy and active for a long time. (For some patients it might be good to mention possible consequences of not taking their meds)

If patient feels well – “we want to keep you feeling as well as you do for a long time” If possible provide specific examples

If patient does not feel well “we think that taking your medicines will help make you feel better” If possible provide specific examples

► Do you take any other medicines, herbs, teas, or do you get acupuncture or any other treatments(?) like that?

Write down medicines or treatments and find out if they interfere with the other medications patient is taking

The “X” herbs/treatments you are taking can help you feel better, but it is important to continue taking the medicines your doctor recommended. You should also talk to your doctor about these medications at every visit.

► Ask patient to summarize problems, plan, and goals and ask if s/he agrees.

## **SPECIFIC ATDM QUESTIONS:**

1) Only Asked In Span & Cant ATDM and Only the First Month:

Is there a pharmacist who speaks your language at the pharmacy where you get your DIABETES medicine?

If yes, press 1

**If no, press 2 -HIGHLIGHT**

- If no, call patient back with the name and number of the closest pharmacy and where to locate it. This information can be found in the IDEALL Resource book.

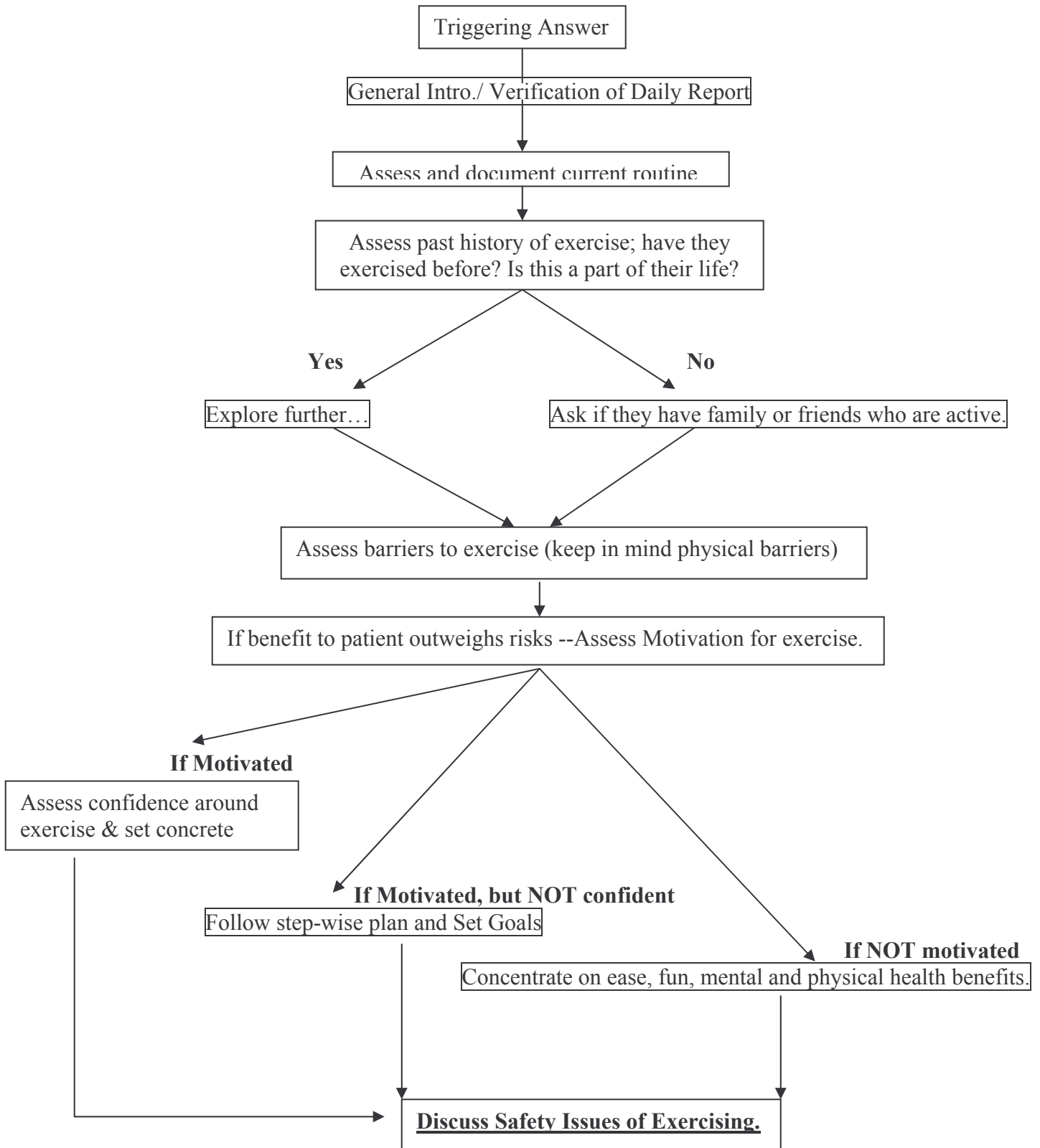
2) We would be happy to talk to you about your diabetes, blood pressure, or cholesterol medications. We can also talk about side effects you might be having, problems paying for these medications, problems ordering your refills, or any other questions you might have about these medicines. **If you want us to call you back, press 1.** If not, press 2.

- If 1: see procedures above which would be relevant to answering this question. Also discuss with IDEALL pharmacist

### ► General Information:

- 1) The IDEALL Care Manager and PharmDs can initially call in patient refills, but should teach patients how to do it themselves in the future.
- 2) No pain meds should be given and/or changed! Call PCP if patient requests them. We are only addressing DM meds and other medications associated with DM risk factors.

## Exercise Protocol



## Exercise

To be used if triggered by concerning exercise answer...

*Goals:*

*To assess exercise regimen*

*If problem confirmed, to understand reasons for lack of exercise and to assess readiness for change (Prochaska and DiClementi's stages of change)*

*To educate around importance of exercise and have patient buy-in*

*To problem solve around barriers to exercise in a way that is practical and doable for the patient*

### Sample opening question:

In this week's call, there was a question about exercise. You mentioned you did exercise "x" days this week. Does that (number) sound (about) right?

### Response:

Sometimes it's hard to start a new exercise program. Many people find it hard to get motivated to exercise, are scared to exercise, or don't know how. I've heard people say, I'm "too old", "too fat", "too weak", "too sick", "too busy". We want to find out what you are doing to stay active, and work together to figure out what kind of exercise might be good for you. It's never too late to start.

#### ▶ Assess current routine:

Tell me how you usually spend your day? What do you do around the house? How often do you leave the house? When you leave the house, what do you do? Do you get tired when you walk? How far can you walk before you get tired?

#### ▶ Assess past history of exercise:

Have you ever played a sport, danced, or done exercise in the past?

**If yes**, explore (what? how often? what did you like about it? why did you stop? Is it something you might want to try again?).

**If no**, do you have any friends or family members who like to do certain activities?

▶ Assess current barriers to exercise (see examples, above). Remember that if patient has physical barriers (poor eyesight, neuropathy, etc.) and comorbidities, that these may impact your goals and plans and aggressiveness.

▶ If you feel benefits to patient outweigh risks, then continue with the following...

#### ▶ Assess motivation for exercise:

Can use scale of 1 to 10 \* Standard cut-off: 6 – 8 (if confidence score lower than 5,

0 - not motivated

A little motivated

5- 7 Somewhat motivated

Motivated/very motivated

help patient reassess goal into something "doable.")

**If not motivated**, concentrate on ease, fun, mental and physical health benefits. Emphasize aspects of the patient's life that may already involve activity/exercise, i.e. gardening, doing heavy housework, or even their job.

**If motivated, but not confident** (Can use scale of 1 to 10), concentrate on details of step-wise plan that begins easy and utilizes help (either from family/friends or from team). Set goals:

- Feel better? Move easier? Lose weight? Get stronger? Have more energy? Reduce stress? Improve control of diabetes?
- Figure out best times to exercise.
- Figure out length of time to exercise. Start slowly! If all you can do is 5 minutes – great! Plan to increase it every few weeks or months.
- Figure out type of exercises to do. Explain aerobic exercise and weight training– both valuable and a combination is best. Exercise can include being creative w/household chores, taking stairs instead of the elevator, getting off one bus stop early and walking extra, walking w/friends or family, getting involved in senior exercise groups, using canned vegetables or bags of rice as weights.
- Reinforce benefits to mood and physical health and control of diabetes and other chronic illnesses as well as the prevention of others.
- Be aware that some patients and/or cultural groups might have a harder time understanding the concept of prevention. Tailor how you emphasize this point to patients. For example, mentioning how changes in a patient's behavior will influence not only his/her health, but also that of his/her children/grandchildren, etc. might get the point across.

**If motivated**, assess confidence around being able to exercise:

Work with patient to set a concrete goal for the week (or the month).

Can use scale of 1 to 10.

► Discuss safety issues: Remember that exercise can help lower your blood sugar. If you haven't eaten, it can lower your blood sugar a lot. Make sure you eat a light snack an hour or so before exercising and keep juice or candy near by in case you have a low sugar attack (hypoglycemic episode) where you get shaky, sweat too much, feel your heart racing too much, or feel very hungry. If you are worried, you can check your sugar before and/or after your exercise.

Make sure you drink plenty of water before, during, and after exercising.

Check your feet before and after exercise to make sure there are no blisters or sores. Always wear socks and shoes.

Wear clothes that are right for the weather and temperature and do not exercise when it's too hot or too cold.

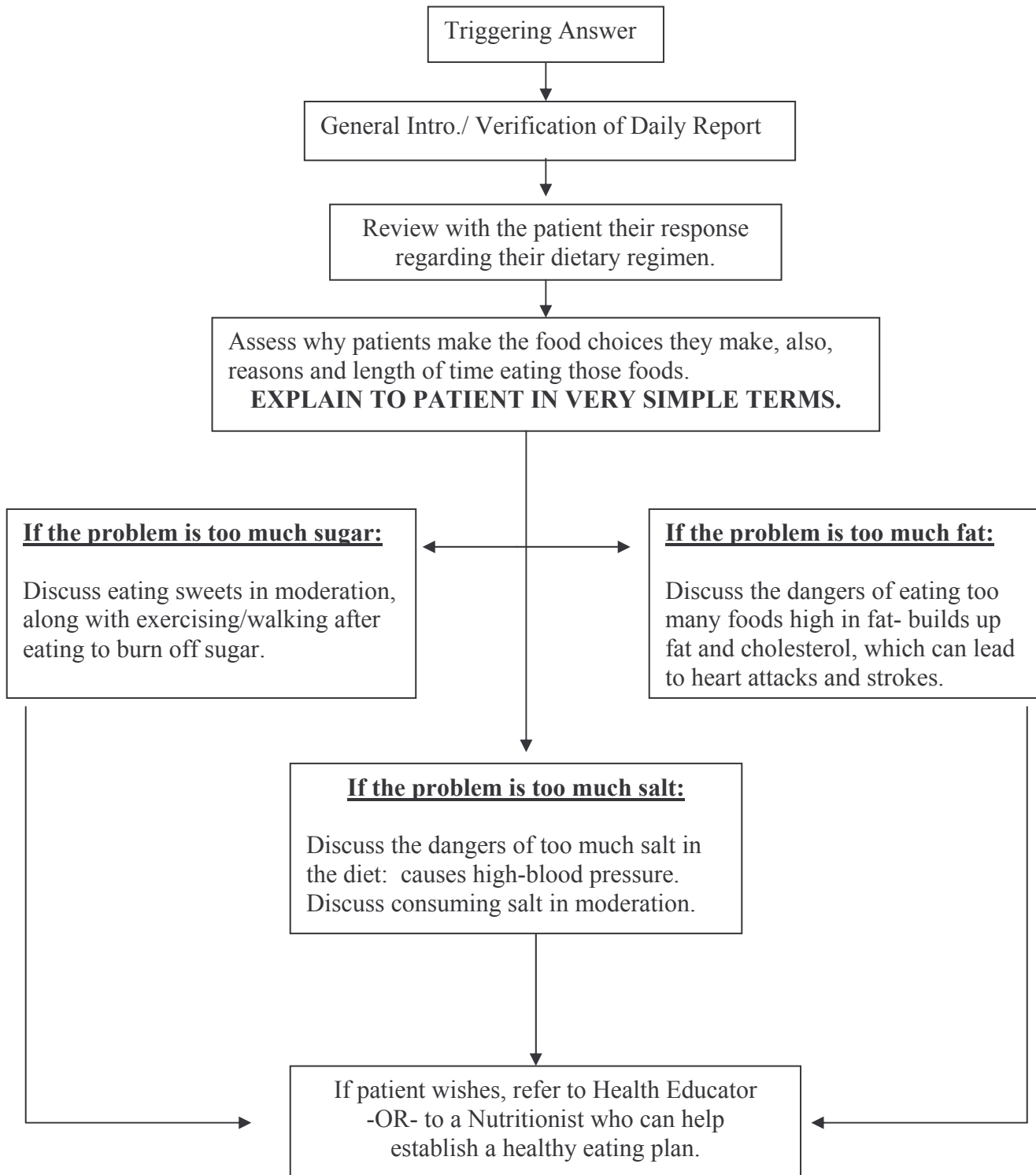
Try to warm up and cool down before/after exercising by doing gentle stretches or walking for about 5 minutes.

► The 1<sup>st</sup> response should trigger a phone call w/counseling as above. If there's a 2<sup>nd</sup> similar response 4-6 wks later, patients could get a 2<sup>nd</sup> call. If there's a 3<sup>rd</sup> response 4-6 wks later, a visit w/a health educator or a home visit can be offered to patients. Also, if there are

physical/health barriers (chronic back pain, leg pain, etc.) discuss with PCP and patient and come up with appropriate treatment plan. If patient is interested in a home exercise consultation, do a standard referral to physical therapy. Once those things have been done, continue to encourage exercise yet focus on things that the patient is more open to doing.



## Nutrition Protocol



## Nutrition

To be used if triggered by concerning nutrition answer...

*Goals:*

*To assess dietary regimen*

*If problem confirmed, to understand barriers to healthy eating*

*To assess readiness for change*

*To educate around importance of healthy diet and have patient buy-in*

*To problem solve around barriers to healthy eating in a way that is practical and doable*

Sample opening question:

In this week's call, there were a few questions about the foods you eat. You mentioned you drank sweetened drinks/ate sweet desserts or sweets, etc "x" days this week. Does that (number) sound (about) right? *(We currently have 5 rotating questions around sweets/desserts, sweetened drinks, eating out- fast food, eating fruits and vegetables, eating healthy while eating out).*

Response:

Many people struggle to eat healthier, especially diabetics. I know that it can be difficult. Have you talked to anyone about what you eat? What were some of the things that you understood or have tried since that conversation? Has it been hard to do some of those things? Could you tell me what you understood about why what you eat matters? (the "x" food is closely connected to the sugar level in your blood/body, which affects DM vs. fat level that can clog your arteries vs. salt, which can raise your blood pressure, etc.—IN SIMPLE TERMS!) We can work together on this and talk about what choices and changes you can make.

► What do you like about "x" foods? Have you always eaten that?

Do you cook for your family or does someone else cook for you?

How many times a day do you eat?

Tell me what you ate yesterday for breakfast, lunch, and dinner?

Can work off of this answer when talking about the different foods and/or amounts patient should increase or decrease.

► The key to this is to think about the foods that are good for you and that you eat already. We should work on how you can eat more of these healthy foods, instead of focusing only on the things you can't eat. And, we should think about how you can start by eating less of some of the sugary foods or starches instead of thinking that you have to give everything up at once. Healthy foods include vegetables (i.e. broccoli, nopales), beans & nuts, whole grains, lean meats and poultry, low fat dairy products, and fruits. Also, part of eating healthy is eating smaller portions and eating regularly throughout the day.

► If the problem is too much sugar (i.e. sweets/desserts):

You don't have to cut sweets/desserts out of your diet completely. The trick is eating sweets/desserts in small amounts and only once in a while. First of all, eat sugary foods with a complete meal instead of instead of eating it as a meal or as a snack by itself. When you eat sweets/desserts alone, it makes the sugar in your body go up very quickly. When you eat it as

part of a healthy meal, it goes up more slowly. Also, if you want to eat a small amount of dessert at the end of your meal, eat less foods like bread/tortillas/rice/potatoes (starches) during the meal. You can always use a sugar substitute like sweet and low or equal instead of white/brown sugar with your drinks . Going for a walk or exercising after you eat can help burn off the sugar you ate.

► If the problem is too much fat (i.e. cooking with lard, eating out):

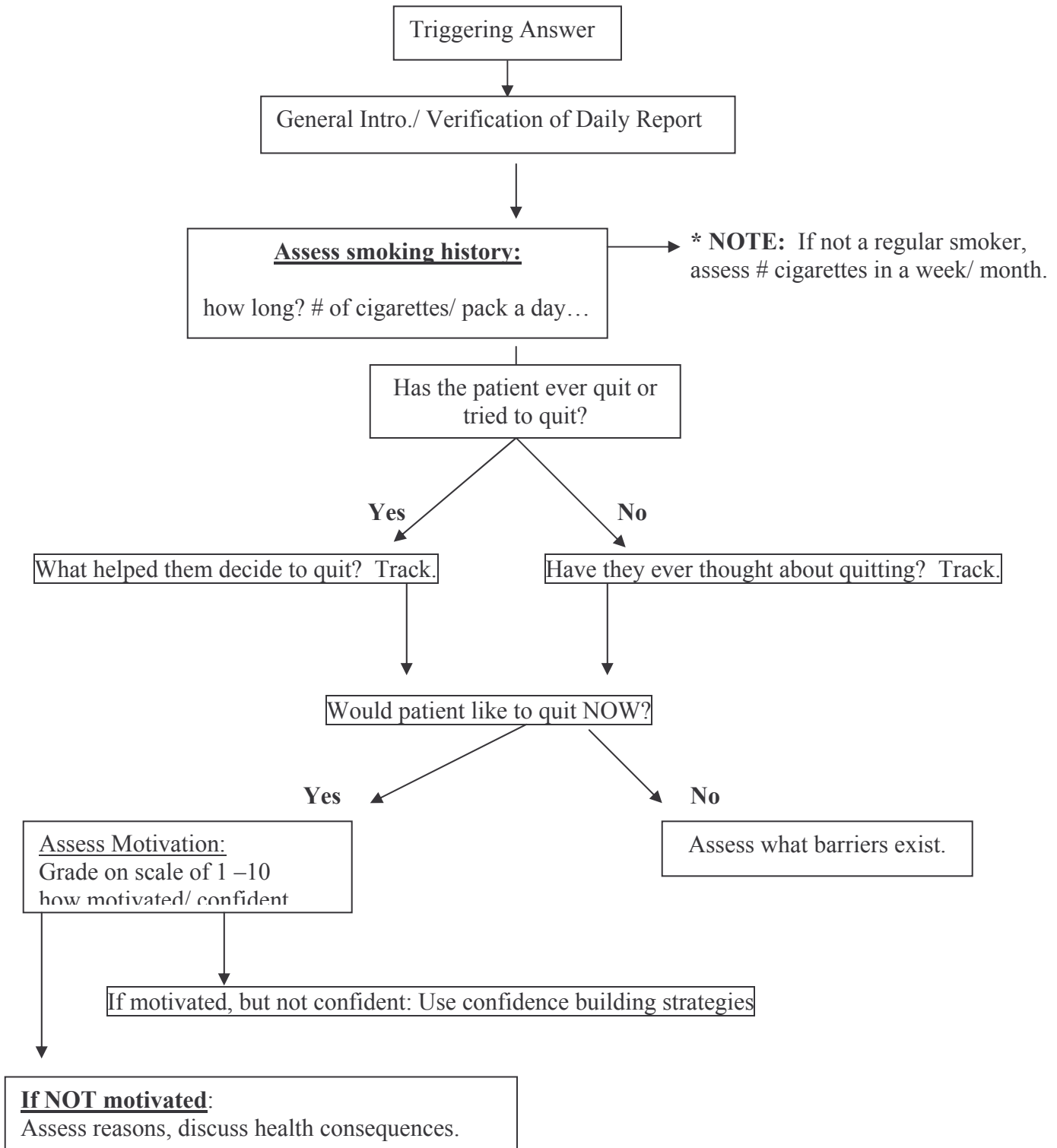
Eating too many foods high in fat can cause the build up of fat and cholesterol in you arteries and heart and lead to heart attacks and strokes. (*\*If we are tackling this, make sure that you explain this to patient in VERY simple terms and have them tell you what they understand*) How do you normally cook your foods? Well, easy ways to cut down on fat are to switch to low or non-fat milk and cheese products; to eat fewer eggs (no more than 1 a day), to bake, grill, broil, or roast food instead of deep-frying. Have you tried some of these before? If you want to fry some of your foods, use a small amount of olive or canola oil in a pan. Some fats, like the fats in vegetables (avocados) or in nuts, are good for you. Fats like those found in butter, lard, shortening, bacon and other fatty meats are not healthy and should be cut down. Remember, you can always go on a walk or do exercise after your meal to help burn up the fat you ate in your meal.

► If the problem is too much salt:

Do you like your meals to be very salty/ do you add a lot of salt to your meals? (May want to alter response depending on the patient response to the BP question). Although most spices are delicious and safe to eat, too much salt can raise our blood pressure, and can lead to many health problems. Many processed foods like canned soups, frozen foods, instant noodles, and cold cuts are high in salt. You should try to cut back on the amount you eat. If you are preparing food yourself, try substituting salt with other spices (pepper, garlic, herbs)— I bet you'll find you don't miss the salt very much. If you choose to use salt, very little and as little as possible. Sprinkle it in your hand first to see how much you're using and try not to use more than half a teaspoon per meal.

► Changing the things you eat normally can be difficult. If you'd like you can talk more about these changes with a Health Educator. We can also refer you to the nutritionist who can help you make an eating plan. You should also ask your family and friends to help support you as you make these changes to the things you eat. The changes you make to your diet can also help them in the future.

## Smoking Cessation Protocol



## Smoking Cessation

To be used if triggered by positive smoking answer...

*Goals:*

*To assess tobacco history/patterns of use*

*If problem confirmed, to assess readiness for change*

*To educate around importance of tobacco cessation*

*If ready/motivated for change, to help elicit a plan*

*If not ready/motivated for change, to plant a seed*

### Sample opening question:

In this week's call, there was a question about smoking. You mentioned you smoked a cigarette or took a puff "x" days this week. Does that (number) sound (about) right? Do you smoke once in a while, like only when you drink, or do you smoke more than that?

### Response:

Many people start to smoke cigarettes and say that quitting is one of the most difficult, but rewarding things they've ever done. Can we talk a little bit about your smoking?

#### ► How long have you been smoking?

How many cigarettes or packs do you smoke a day? If not a regular smoker- how many cigarettes would you say generally smoke in a week or a month? What do you like about smoking? Do you like to smoke at particular times or places? What or who makes you want to smoke more?

#### ► Have you every quit or tried to quit?

If yes – what helped you decide to quit? What helped you stay off? What made you start again? What was hard about it?

If no – have you ever thought about quitting? What kept you from quitting?

#### ► Do you feel like your smoking is a problem for you? Do you think it can cause health problems for you?

#### ► Do you want to quit now?

**If no...**Did you know why smoking can make it harder for you to control you diabetes?

**If yes** – how motivated are you? (scale of 1 –10)

How confident? (scale of 1 – 10)

**If motivated, but not confident**, use confidence building strategies:

It's GREAT that you're motivated to quit and I know it can be scary. Sometimes it takes people many tries before they can finally stay away from cigarettes. That's OK. Every time you try, you get closer to your goal. I want to help you make your goal and there are several things we can use to do that. Examples:

quit aids (patches, zyban, gum, etc. – review use hx/preferences)

support groups

friends and family (also address problem solving if any friends and family ALSO smoke...as this can be a huge barrier)

quit date

check-in's w/us

If patient is interested, refer to Smoking Cessation Group (See referral section for details)

**If not motivated (pre-contemplative):**

I realize that it is hard to quit. What do you like about smoking?

Is there anything that you don't like about it?

Is there anything that might get you to think about quitting?

What if you knew there was help and support to help get you through? You are not the only one trying to do this.

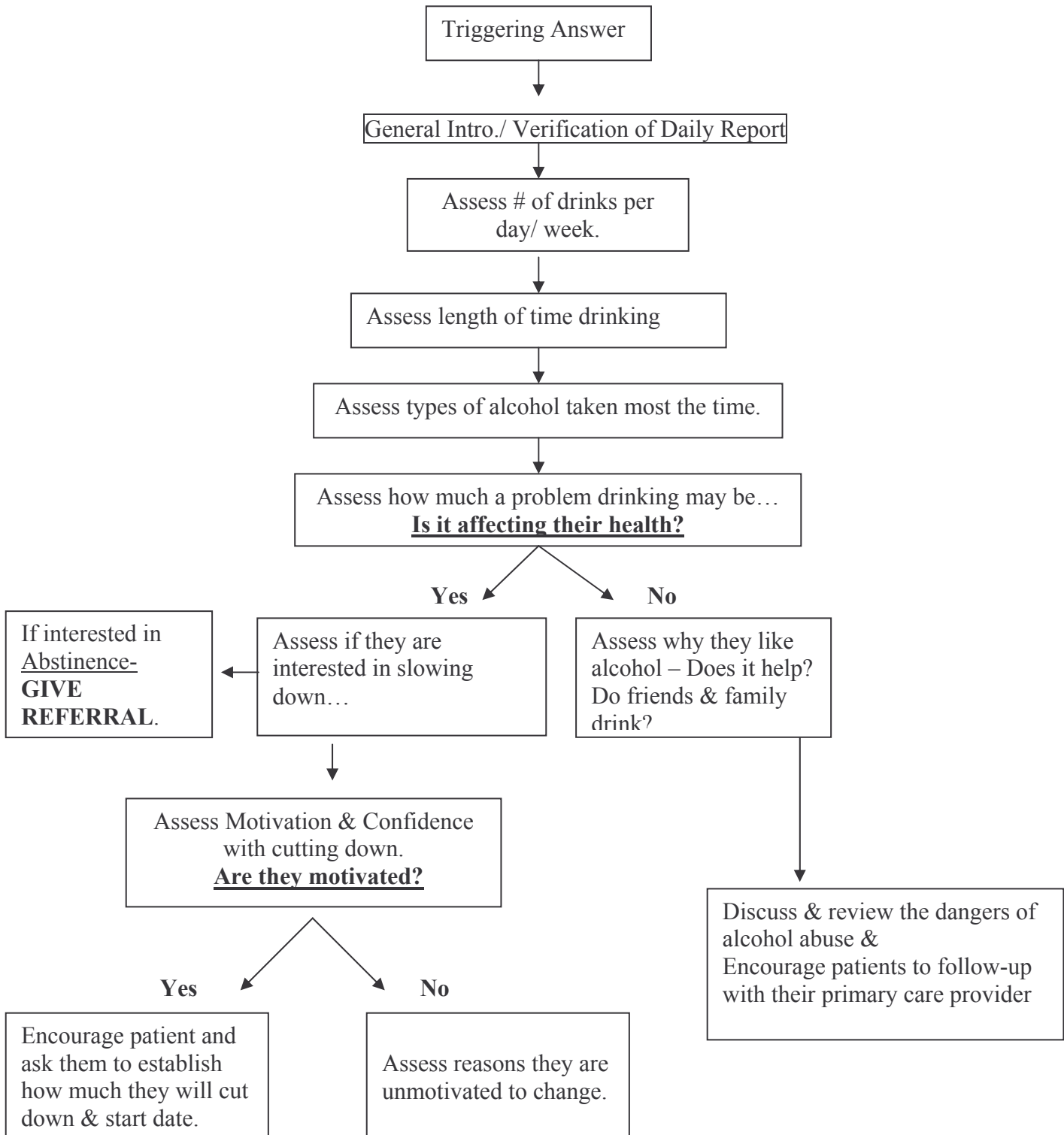
If they admit they're scared, etc. offer support, address concerns, and schedule follow-up call. Possible referral to Smoking Cessation Group (See referral section for details).

If they remain staunchly against discussion of quitting, give them a bullet about the potential health consequences and remind them that we want them to stay healthy, to control their current health conditions, and to prevent new ones.

► If the patient only smokes once a month or so, it would be important to say that any amount of nicotine and tar is especially harmful in a diabetic person and to ask if there was a way to cut cigarettes out completely. Not necessary to go through all of the previous questions- Up to the discretion of the NP.

► Practically any drug can be substituted in the questions. May want to ask if drug helps the patient deal w/stress. If any one else in their household is using. If patient has ever been in detox or rehab (or if using opiates, on methadone). Should trigger call to PCP.

## Alcohol Use Protocol



## Alcohol Use Protocol

To be used if triggered by concerning alcohol use answer...

*Goals:*

*To assess alcohol history/patterns of use*

*To educate around importance of alcohol moderation*

*If ready/motivated for change, to help elicit a plan*

*If not ready/motivated for change, to plant a seed*

### Sample opening question:

In this week's call there was a question about drinking. You mentioned that you drank "x" drinks. Was that "x" drinks each day this week, a couple of days this week, or just the total number for the week?

### Response:

Alcohol is everywhere and sharing a glass of wine or beer with friends or family at a party or a meal can be fun. The key is not drinking too much alcohol. This is really for EVERYONE, but people with diabetes need to be extra careful since alcohol can affect the blood sugar in the body. Can we talk with you about the amount of alcohol you drink?

► Going back to the "x" number of drinks you had this week, do you have that many glasses of alcohol (bottles/cans of beer, etc.) that you drink a day/week, every week?

Do you drink at home, when you go to parties, w/ family or friends?

How long have you been drinking "x" glasses/day (etc.)

What kind of alcohol do you drink most of the time?

Do you use cups, glasses, shots, cans, or bottles?

► Do you feel like it's a problem for you? Do you feel like it's affecting your health?

**If no** to either of these questions – What do you like about alcohol? Do you think it helps you? With what? Do your friends and family members drink alcohol, too? "It sounds like a glass of wine really does "x" for you. I understand. But I also want to make sure that you hear about how dangerous alcohol can be for a diabetic". Review hypoglycemia, liver damage, brain damage, neuropathy, poor decision making (i.e. missing meds & appointments, forgetting to check feet, clumsiness) Encourage patient to think about health and personal consequences and to follow up with their doctor.

**If yes-**Are you interested in cutting down?

How motivated are you to cut down?

How confident are you that you can cut down?

**If not motivated**, "It seems like you think alcohol is a problem for you and that it's affecting your health, but that you're not motivated to change. Why do you think that is?" or "You've taken the first step, which is acknowledging that alcohol may be a problem. Even if you're not yet ready to cut down, there's a chance you will be soon. When you're ready, we can help you figure out how to do it."



**If motivated:**

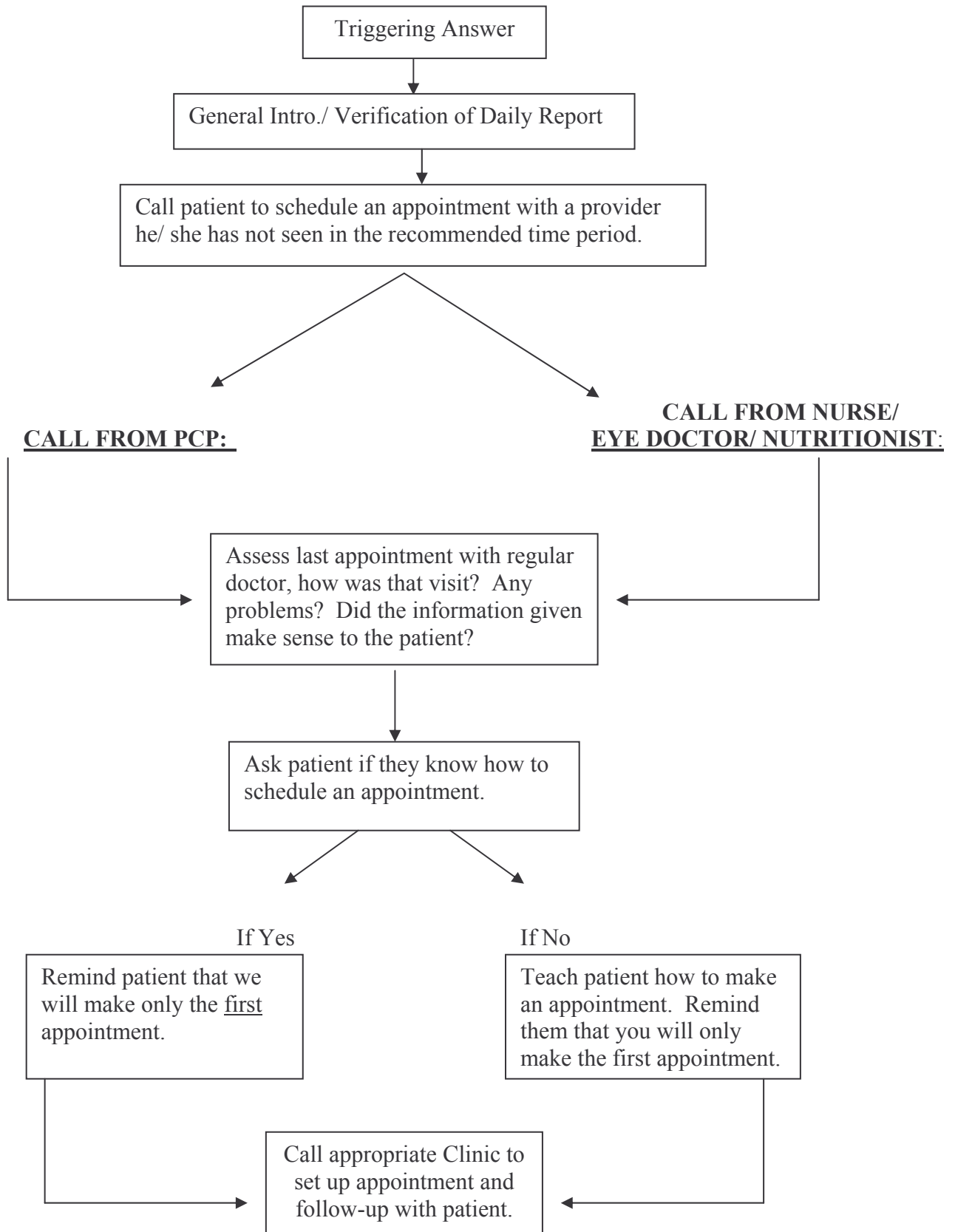
I think it's great that you want to cut down and I think we can work together to figure out how.

**If patient open only to harm reduction** – focus on drinking fewer drinks (goal is one/day for women and two/day for men) and always drinking with food to prevent hypoglycemia. Also, avoid drinking while playing sports or exercising to prevent hypoglycemia.

Remember that when you're buzzed or drunk, things like slurred speech and confusion are similar to the signs of a low blood sugar reaction. This can be confusing for you and for your family and friends. We don't want people to think you're drunk when you're really having a life threatening low blood sugar reaction and need to get to a hospital. Does this make sense? Would it feel OK to cut down? (pin them down on when they'll cut down – start date, which meals +/- EtOH, etc). Can you try not to drink on an empty stomach?

**If interested in abstinence**, will need referral. Praise/encouragement/support!! Options include acute inpatient detox (Ozanam, etc), rehab, outpatient detox, AA, and other support groups. (see list of options and refer case to SW for assistance). Do you want us to talk to your PCP about this?

## Appointment Protocol



## Appointment Protocol

To be used if triggered by concerning patient comments and/or an answer...

*Goals:*

*To assess general use of hospital services*

*To educate around importance of communicating with various providers*

*To problem solve around barriers to accessing health services for the patient*

► If any of these questions are noted on the patient's daily report, it is because the patient would like us to schedule an appointment with a provider he/she has not seen in the recommended time period. They have also received a brief health education piece reminding them of some of the benefits of seeing the various providers. For now, If a patient has not seen a provider, and does not want us to make an appointment for him/her, we will not have that information in the Care Manager reports.

### ► **PCP:**

Sample opening question/response:

I see here that you have not seen your regular doctor in the last 3 months and that you would like us to set up an appointment for you. When was the last time you had an appointment with your regular doctor?

Did everything work out during that visit? Did you have a hard time doing the things s/he suggested? Did what she/he was say to you make sense to you?

Do you know how to make an appointment?

**If no**, teach patient how to make an appointment. Remind him/her that we will make the appointment the first time, but will not continue to do so in the future.

Call the appropriate clinic to set up an appointment and follow-up with patient. "After you see your regular doctor, remember to schedule an appointment to see her/him again within another 3 months".

**If yes**, remind him/her that we will make the appointment the first time, but will not continue to do so in the future.

### ► **Diabetes Nurse/ Eye Doctor/ Nutritionist:**

Sample opening question/response:

I see here that you have not seen a diabetes nurse/eye doctor/nutritionist in the last 12 months and that you would like us to set up an appointment for you. When was the last time you had an appointment with the diabetes nurse/eye doctor/nutritionist?

Did everything work out during that visit? Did you have a hard time doing the things s/he suggested? Did what she/he say to you make sense to you? Important to do a little education here about preserving a patient's eye sight and preventing blindness.

**If no**, teach patient how to make an appointment. Remind him/her that we will make the appointment the first time, but will not continue to do so in the future.  
Call the appropriate clinic to set up an appointment and follow-up with patient.

**If yes**, remind him/her that we will make the appointment the first time, but will not continue to do so in the future.

### **Clinic Numbers**

*1M or General Medical Clinic:*

The Urgent Care and Advice Nurse Line: 206-3833

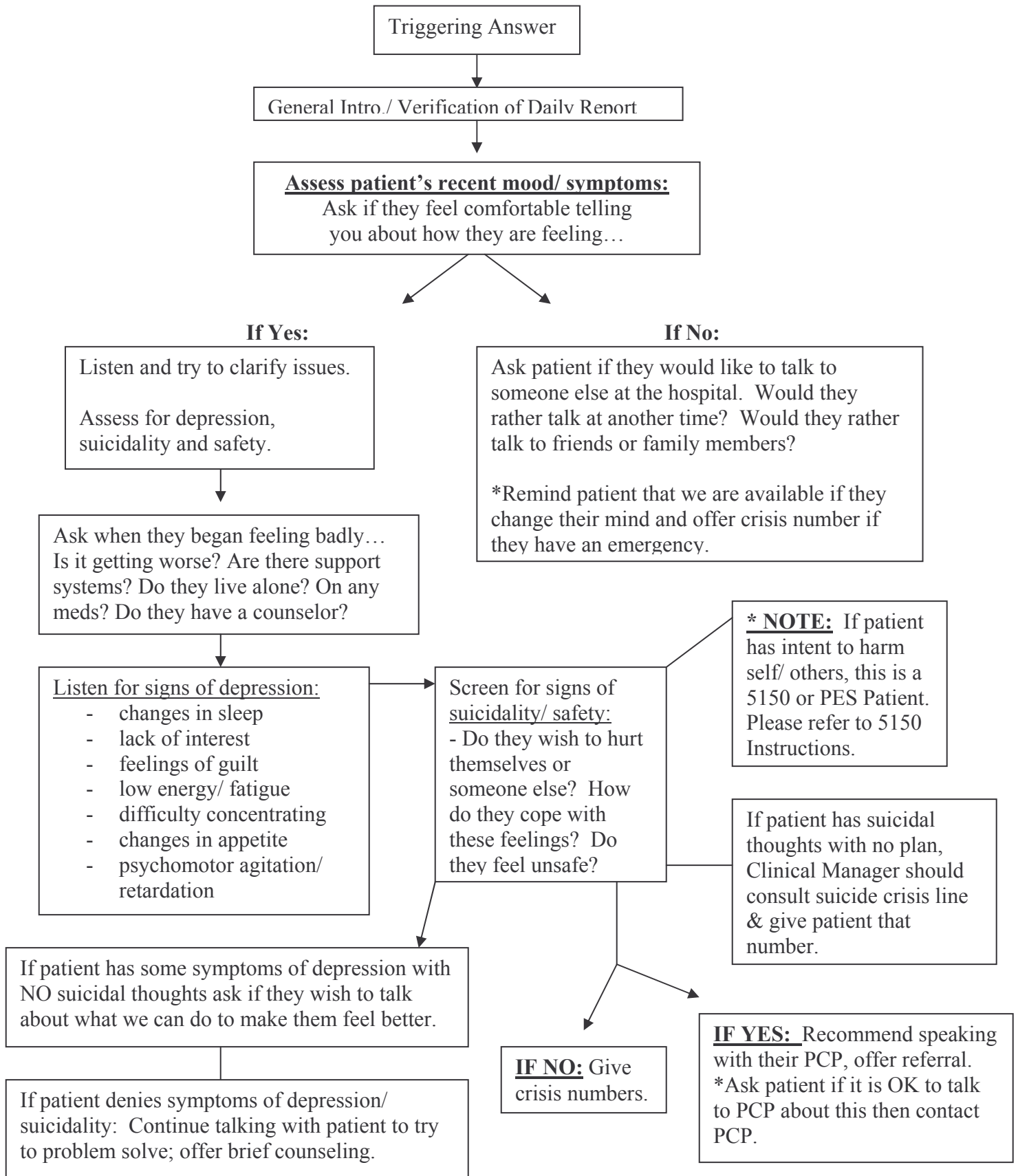
The Appointment Line: 206-8494

*The Family Health Center in Building 80:*

The Urgent Care and Advice Nurse Line: 206-8609

The Appointment Line and after hours help: 206-5252

## Mood Status Protocol



## Mood Status Protocol

To be used if triggered by concerning mood answer...

*Goals:*

*To assess patient symptoms*

*Provide brief counsel*

*Discuss treatment options*

*Discuss situation with PCP*

*Initiate treatment criteria for emergency numbers*

Sample opening question:

In this week's call there was a question about how you've been feeling and if you were sad or blue. You mentioned that you felt sad or blue "**most of the times/Always**". Does that sound right?

[For patients who answered "**some of the time**" the approach and/or response should be slightly altered or since patients pressed the option requesting additional help - hence, they are more proactive].

Response:

Many people feel sad or blue sometimes and are not quite sure what to do. We want to hear how you are feeling and see if we can work together to help you.

▶ Do you feel comfortable telling me a little bit about what is happening?

**If no:**

Would you like to talk to someone else at the hospital?

(contact PCP, consider referral to Psychosocial Med.)

Would you rather talk at another time?

Would you rather talk to your friends or family members?

(Remind patient that we are available if they change their mind, and offer to give crisis number if they have emergency.).

**If yes:**

Listen and try to help clarify issues.

Keep in mind assessment for depression, suicidality, and safety (see below)

▶ When did you start feeling like this? Is it getting worse? BE AN ACTIVE LISTENER AND GIVE PATIENT TIME TO EXPRESS THEIR VIEWS ON THE SITUATION

Ask about support systems:

Is there anyone you talk to/could talk to about your feelings?

Do you live by yourself?

Do you have a counselor?

Are you on any medication?

Listen for symptoms of depression:

-changes in sleep

-lack of interest

- feelings of guilt
- low energy/fatigue
- difficulty concentrating
- changes in appetite
- psychomotor agitation/retardation

Screen for suicidality/safety:

Are there times when you feel like you want to hurt yourself?

Are there times when you feel like you want to hurt someone else?

What do you do/what have you done when this happens?

Do you feel unsafe?

**If patient has intent with plan to harm self/others, this is a 5150 or PES Patient** (*Call the Psychiatry Liaison team and/or PES at x8125 to arrange for intervention*)

**If patient has some suicidal thoughts, with no plan:**

For these patients, Clinical Manager should consult suicide crisis line, i.e.

Westside Crisis & Access Mental Health or SFGH Psychosocial Med and discuss the case with them. The Care Manager should also give the patient the suicide crisis line.

**If patient has some symptoms of depression with no suicidal thoughts:**

Do you want to talk about what we can do for you to feel better?

**If no:**

I am concerned about you and want to make sure you have a number to call in case of an emergency (give crisis numbers)

**If yes:**

It sounds like you are having a hard time. Have you talked with your PCP about how you are feeling?

Offer to contact PCP and consider Psychosocial Med referral.

[Before referring patients to Psychosocial Medicine, ask patient if it is OK to talk to PCP about this and then contact the patient's primary care provider. Contact with the patient's PCP will depend on which method of contact they selected- will be available in the IDEALL database]

Continue talking to patient to try to problem-solve and offer brief counseling...

**If patient denies symptoms of depression/suicidality:**

Continue talking to patient to try to problem-solve and offer brief counseling....

- ▶ What kinds of things/situations make you feel down/sad/blue?
  - Listen to patient. Help patient think about who can offer ongoing support and how they might reach out.
  - Try to formulate action plan based on patient's unique circumstance:
    - *(i.e. It might be helpful for you to know that other people are struggling with the same problems. There is a support group that meets on.....)*
    - *(i.e. Your family/friends might be able to help you keep on track with diet and exercise if they understood what diabetes is and how it affects your health. Do you think you could sit down with them and talk about it?)*
    - *(i.e. Exercise is important for everyone—not just patients with diabetes. Maybe you and your children can make a date to go walking together.)*
    - *(i.e. Have you talked to your PCP about how you are feeling? Would you like to make an appointment or have him/her give you a call?)*
  
- ▶ Ask patient if it is OK to discuss this with PCP. Consider referral to Psychosocial Med. if appropriate. Discuss the possibility of antidepressant medications and convey level of interest to PCP for possible initiation.
  
- ▶ All communication with the patient should be documented on ATDM Note. Communication with patient's PCP should also be documented and can be done by adding an addendum to the initial patient note.

## **Crisis Lines and Information Lines**

### **Crisis Intervention and Suicide Prevention**

- San Francisco 415-781-0500 Span./Eng.  
415-989-5212 nightline 7wk.  
650-692-6655
- San Mateo County
- Psychiatric Emergency Services – San Francisco**
- Child Crisis Service (415) 970-3800
- San Francisco General Hospital, Psychiatric ER 415-206-8125 Interpreters available.
- Westside Crisis Services M-S 9-6p.m. 415-353-5055 (Span./Can.)  
If available

### **Psychiatric Emergency Services – San Mateo County**

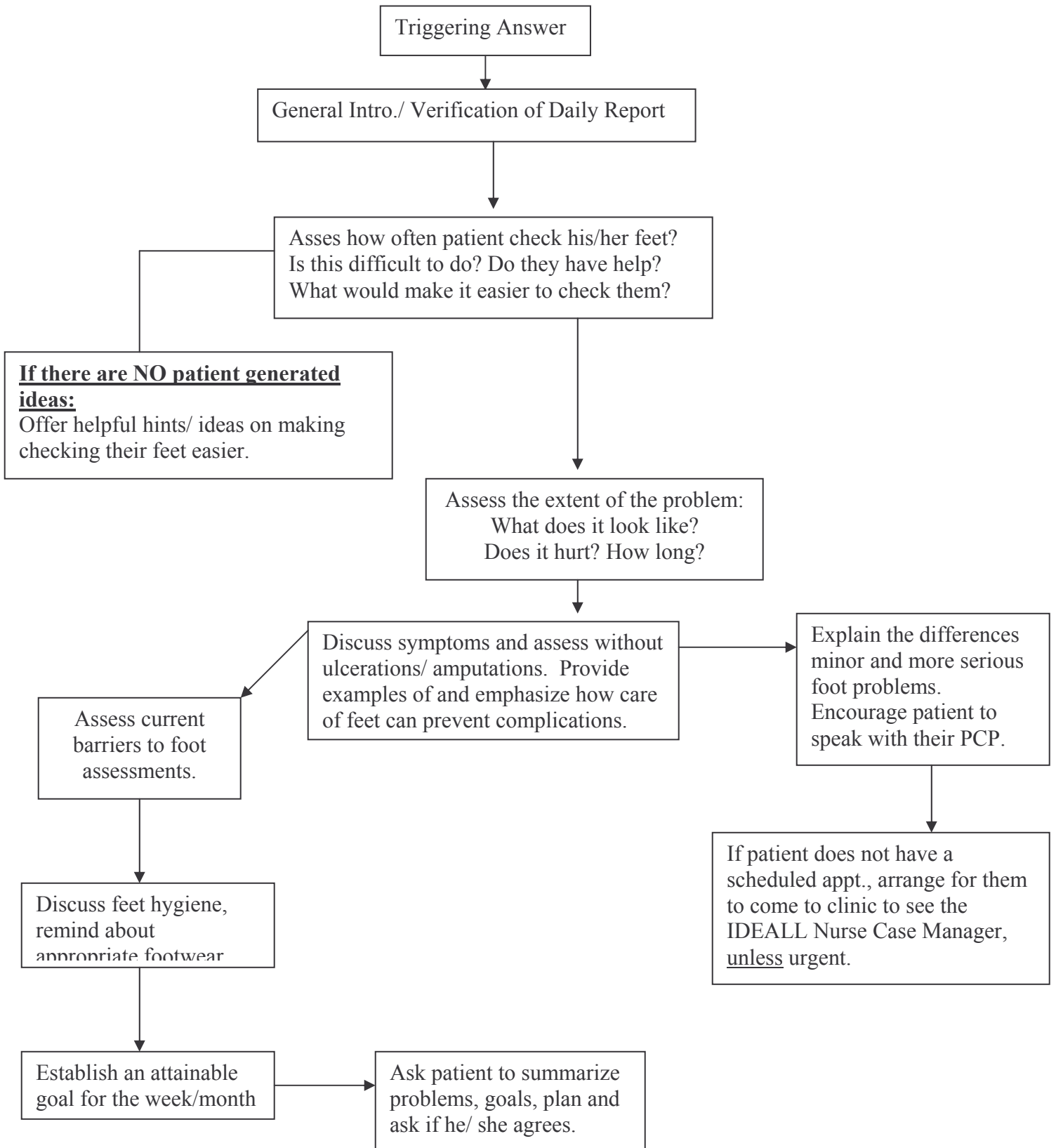
- San Mateo General Hospital, Psychiatric ER 650-573-2662 (Span./Can.)  
24hrs.

### **Mental Health Information and Referral**

- San Francisco Mental Health Information and Referral 415-981-4700
- San Mateo County Mental Health Access Team *M-F 8-5pm* 1-800-686-0101 (Spanish)
- San Francisco Help Link (referral for mental health and all other social and human services) *(8 am - 5 pm)* 415-772-HELP (4357)



## Podiatry Protocol



## Podiatry

To be used if triggered by concerning podiatry answer...

*Goals:*

*To prevent infection, ulcerations, and amputation by detecting early problems.*

*To educate patients with diabetes about the importance checking their feet*

*To problem solve around barriers and strategize with patient so that foot checks become routine*

*If patient is receptive, engage in shorter goal setting*

### Sample opening question:

In this week's call, there were a couple of questions about checking your feet. You mentioned you check your feet "x" days this week. Does that (number) sound (about) right? Do you normally check your feet more than this? Less?

### Response:

Sometimes it's hard to start checking our feet or we may not even think about it, but it is even more important to do so when you have diabetes so you can catch problems and talk to your doctor.

► When do you check your feet? What makes it hard? Does someone help you?  
What would make it easier to check them?

If no patient generated ideas...

Check your feet while sitting in a room that has plenty of light

Check them at the same time every day (even setting an alarm)

Ask a family member to help

Use a mirror if you cannot see your feet

► If call back is needed due to:

\*any cuts

\*sores

\*blisters- especially those that are not healing

peeling skin between the toes

prolonged numbness or tingling in toes and feet...

\*pain and swelling in feet

yellowish nails

\*ingrown toenails

itchy feet

\* *May require more immediate attention*

► Assess the extent of the problem:

Can you tell me what you noticed? What does it look like? Does it hurt? How long have you had this?

► Discuss symptoms with patient and assess without ulcerations/amputations. Provide examples of and emphasize how care of the feet can prevent complications. Also explain the

differences between minor foot problems and more serious problems that require early or immediate professional treatment.

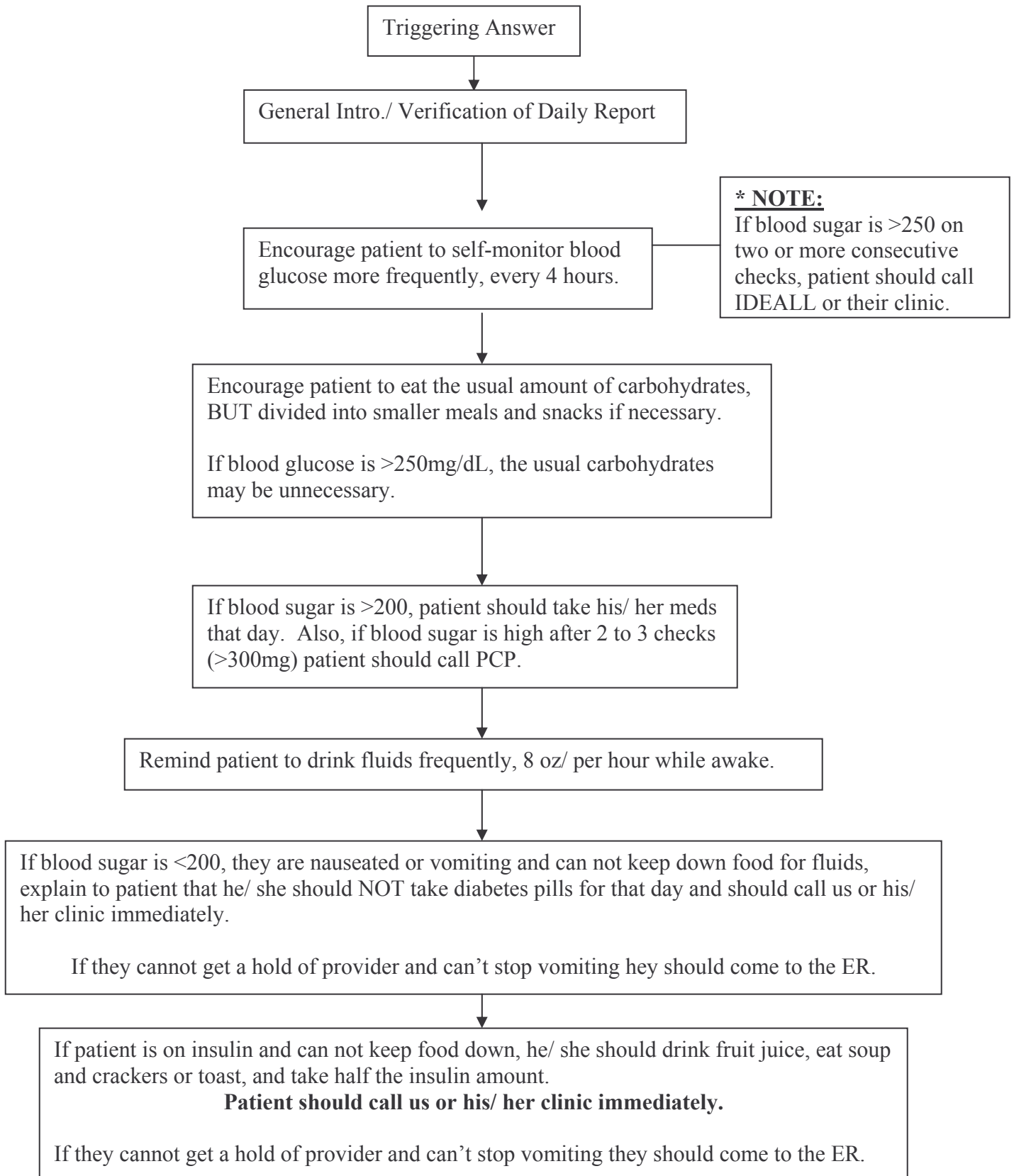
If patient has an upcoming appointment with his/her PCP, encourage patient to talk to the PCP about the problems.

If patient does not have a scheduled appointment, arrange for patient to come to the clinic and see the IDEALL Nurse Case Manager, unless urgent.

- ▶ Assess current barriers to foot assessments. Remember that if patient has physical barriers (poor eyesight, neuropathy, etc.) and comorbidities, that these may impact expectations and goals.
- ▶ Discuss feet hygiene
- ▶ Remind patient about wearing appropriate footwear, especially during exercising
- ▶ If the patient's symptoms limit his/her lifestyle or medical management, a vascular specialist can determine appropriateness of surgical intervention on a patient-specific basis. An ingrown toenail should also be immediately referred to a foot specialist for evaluation and for immediate referral.
- ▶ Work with patient to establish an attainable goal for the week/month
- ▶ Ask patient to summarize problems, plan, and goals and ask if s/he agrees.
- ▶ SFGH has a diabetic podiatrist, but the waiting list is up to 2 mos— patients can also be “added-on” to Diabetes Podiatry or to Urgent Care.

*\*Adapted from the VA Diabetes Mellitus Clinical Practice Guidelines. 2002 \*Adapted from the Management of Diabetes Mellitus. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, December 1999. Office of Quality and Performance publication 10Q-CPG/DM-01.*

## Sick-day Management Protocol



## **Sick-day Management Protocol**

*Goals: If problem confirmed, to assess extent of patient sickness and address symptoms*

*To assess patient understanding of hyper and hypoglycemia and what to do for each as it relates to sick-day management*

*To educate around importance of sick day management*

*To problem solve around barriers*

*To encourage patients to contact their PCP when they are feeling sick*

### **The main rules are:**

- Encourage patient to self-monitor blood glucose more frequently, every 4 hours. If blood sugar is above 250 on two or more consecutive checks, patient should call IDEALL or their clinic.
- Encourage patient to eat the usual amount of carbohydrates. However, these should be divided into smaller meals and snacks if necessary. If blood glucose is  $\geq 250$  mg/dL, the usual carbohydrates may be unnecessary.
- If blood sugar is  $> 200$ , patient should take his/her medications that day. Also, if blood sugar is consistently very high after 2 to 3 checks (above 300 mg) patient should call PCP.
- Remind patient he/she should drink fluids frequently, 8 oz per hour while awake
- Explain to patient that if he/she has a blood sugar  $\leq 200$ , is nauseated or vomiting, and cannot keep down food or fluids, he/she should not take diabetes pills for that day and should call us or his/her clinic immediately. If they cannot get a hold of a provider and can't stop vomiting, they should come into the ER.
- If patient is on insulin and cannot keep down food, he/she should drink fruit juice, eat soup and crackers or toast, and take half the insulin amount. Patient should call us or his/her clinic immediately. If he/she cannot get hold of a provider and can't eat or can't stop vomiting, come into the ER.

*\*Adapted from the Management of Diabetes Mellitus. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, December 1999. Office of Quality and Performance publication 10Q-CPG/DM-01.*

## **Other Protocols**

Additional questions regarding topics such as sexual dysfunction and pain management can be generally addressed, but should be referred to patient's PCP

## I. PROCEDURES FOR WRITE-UP OF ATDM PROGRESS NOTE

- An ATDM note should be completed for every patient receiving a callback. The notes should be written by the Supervising Care Manager, with input from the health educator or IDEALL staff, as needed. If the pharmacist completes an individual consultation with a patient, s/he should write a separate note, on the pharmacy progress note.
  - The ATDM progress notes and pharmacy notes will be generated and printed from the IDEALL Project database and photocopied twice.
  - Additional comments/notes for completing the ATDM Progress Note:
    - All prescriptions and refills should be updated on the LCR by the pharmacists and/or the IDEALL clinician.
    - Failed attempts to reach patients who trigger a callback on daily report do not require completion of a progress note. Attempts to reach patient are documented in IDEALL shadow files.
  - Make patient follow-up calls as needed.

## J. REFERRALS

- ❖ Although we will have the capability to refer patients to other providers, specialty clinics, and/or support and activity groups within the CHN, the focus should be on working with the patient on a specific issue and setting patient-centered goals FIRST. The priority should be to engage patients, to problem solve, and to provide support so the patient can reach his/her goals. Please avoid excessive referrals.

### **General referral procedures:**

- ❖ In general, when making referrals, use the red-bordered CHN referral form.
- ❖ If an appointment is needed, use the FHC disposition sheet (in the forms box) and give completed sheet and referral form to Ceci, the Green Team clerk. Inform the patient that an appointment will be made and that she or he will receive an appointment card in the mail.
- ❖ Document on the patient's progress note which referral was made.
- ❖ Leave a voice message for patient's PCP regarding the referral.

### **Referrals to Psychosocial Medicine:**

- ❖ Before referring patients to psychosocial medicine, contact the patient's primary care provider.
- ❖ The general number for patient referral to the Psychosocial Medicine Outpatient Clinic is **206-5189**. The clinic is located at 995 Potrero Ave., Building 80, Ward 82.
- ❖ Referrals should be made by a provider, such as a PCP or other treating clinician; patients cannot self-refer.
- ❖ Clients for whom this clinic is not appropriate, i.e. acute crisis and chronic mental health, should be referred to Mental Health ACCESS, at 255-3737.

- ❖ When referring patients to the SFGH Psychosocial Medicine Outpatient Clinic, you will be asked the patient's name, medical record number, home phone number, and preferred language. You will also be asked the following questions:
  - Is the patient acutely suicidal or delusional?
  - Is the patient currently taking psychiatric medications?
  - Has the patient had a recent psychiatric hospitalization?

**Referrals to FHC or GMC Nutritionists, Diabetes Educators, Social Workers, and Primary Care Providers:**

- ❖ For FHC patients, use the FHC patient disposition sheet and give it to the Green Team clerk, who will schedule an appointment with an FHC nutritionist, diabetes nurse educator, social worker, or PCP. For GMC patients, use the CHN Consult Form. These completed sheets should be given to them to a scheduling clerk in the GMC, who will make the appointment. With these and other referrals, you should double check to see if appointment was made. One way to do this is by checking the patient's LCR for upcoming appointments.

**Referrals to Smoking Cessation:**

- ❖ Call 206-6074 to make a referral. Follow the instructions given on the outgoing message. To find out when the next series of classes is starting, go to the CHN intranet homepage and look for the posting.
  - California Smoker's Helplines:
    - Cantonese/Mandarin: 1-800-838-8917
    - English: 1-800-662-8887
    - Spanish: 1-800-456-6386

**Referrals to Mindfulness-Based Stress Reduction**

- ❖ Call 206-5392 to contact Katherine Guta to make a referral. Follow the instructions given on the outgoing message. To find out when the next series of classes is starting, go to the CHN intranet homepage and look for the posting.

**Addressing Disclosures of Intimate Partner Violence**

- ❖ In general, when such a disclosure happens during a follow up call, there is a blue binder entitled FHC Domestic Violence Resource Folder, which you may find useful as well as the IDEALL Resource Folder which will include numbers a patient can call to seek help. The more up-to-date resource is the CHN Intimate Partner Violence website, which can be accessed through the CHN intranet homepage. Click on "Other SFGH Sites" in the list on the left. You can also go directly to <http://insidechnsf.chnsf.org/DomesticViolence/index.htm>

**K. APPENDICES**





## Appendix A: Action Plans- Sample Session

One of the things we will focus on in these groups is setting goals. . A goal is something we would like to do in the next month to six months, such as walking, visiting family, doing things with friends, or controlling your diabetes.

Goals are generally too big to work on all at once. Therefore, we need to start one step at a time and with smaller goals. For example, if my goal is to loose weight, I might start with deciding what type of exercise to do, then where I can go to exercise, how much time I will spend exercising when first starting, and maybe asking a friend or family member to exercise with me.

Next facilitators would lead participants into the next activity – deciding what goal or action plan to make **this month** and how we are going to do it. (You can either write these down on the board, or simply remember to ask these in series when helping patients formulate their action plans.)

### **Parts of an action plan**

1. Something YOU want to do – not what your doctor, nurse, family, or anyone else thinks you should do
2. Realistic- something you think you can REALLY do this month
3. A specific action – for example, losing weight is not specific, but not eating chips or other snacks between meals IS
4. Answer the questions:
  - What? – For example, eating more vegetables
  - How much? –For example, 1 extra cup a day
  - When? – For example, with dinner
  - How often? – For example, 4 times a week
5. Confidence level of 7 or more- In other words, HOW SURE ARE YOU THAT YOU WILL BE ABLE TO DO THIS ACTION PLAN/GOAL  
0= don't think you can do it to 10= you definitely think you will complete the action plan.

Facilitators should prepare actions plans as well, remembering that their actions plans will serve as MODELS to the group participants.

## **Appendix B: Medications for Diabetes**

*\* Some of the information and tables in this appendix were obtained or adapted from the Management of Diabetes Mellitus. Washington, DC: VA/DoD Clinical Practice Guideline Working Group, Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense, December 1999. Office of Quality and Performance publication 10Q-CPG/DM-01.*

- For most Type 2 Diabetics, treatment consists of a step-wise approach, which begins with lifestyle modification. Most of our patients take at least oral agents.
- The first step in the medication ladder is monotherapy – either with a sulfonylurea or biguanide, eg. Metformin (in addition to lifestyle modifications). For patients with significant obesity, initial monotherapy with Metformin may be preferable. Before adding a second agent, doses should be maximized, paying close attention to tolerability/side effects.
- The second step is an addition of a second agent – again, usually either a sulfonylurea or Metformin. Doses again, should be maximized. If no contraindications present, a third oral agent can sometimes be added.
- If a patient fails three agents, the next step is usually the addition of insulin. If a type 2 patient demonstrates ketosis, it usually means they have exhausted their pancreatic reserve and can no longer produce insulin (i.e. should be on insulin alone or insulin + an oral agent, i.e. thiazolidenedione or biguanide)

### **Recommended Option for Type 2 DM**

| <b>Therapy</b>   | <b>Drugs</b>  | <b>Expected reduction in HbA1c</b>                     |
|--|---|--|
| Lifestyle modification, diet and exercise  | None  |  |
| Lifestyle modification, diet and exercise & <b>Monotherapy</b> with oral agent                   | Sulfonylurea or biguanide   | 1-2 percent  |
| Lifestyle modification, diet and exercise & <b>Combination Therapy</b> (add a second oral agent) | *Sulfonylurea + biguanide<br>*Sulfonylurea or biguanide + alpha-glucosidase inhibitor<br>*Sulfonylurea or biguanide + thiazolidenedione | 1-2 percent<br>0.5 to 1 percent<br>0.7 to 1.75 percent |
| Lifestyle modification, diet, and exercise & Insulin with oral agent                             | *Biguanide + insulin<br>*thiazolidenedione + insulin<br>*Sulfonylurea + insulin   |  |
| Insulin  | Insulin alone   |  |

## Individual Medications:

### A. Sulfonylureas

- Sulfonylureas lower blood glucose by stimulating insulin release from beta cells in the pancreas.
- A second-generation sulfonylurea is often the first-line agent, based on safety. HbA<sub>1c</sub> should be measured 3 months after initiation and changes in therapy.
- If the response to a single daily dose does not achieve treatment goals, dividing the dose may be effective.
- If the patient does not have an initial response to therapeutic doses of a sulfonylurea (primary failure), evaluate patient for possibility of type 1 DM. Make sure patient has no intercurrent illnesses or drugs that can interfere with glucose control and assess adherence to diet and drug therapy. If they are now of these complication factors, combination therapy is warranted.
- SIDE EFFECTS:** hypoglycemia

### Oral Sulfonylureas(a)

| Sulfonylurea         | Potency | Dosing Interval | Daily Dose (b) (mg/day) | Plasma half-life (hrs) | Duration of action (hrs) | Active metabolites |
|----------------------|---------|-----------------|-------------------------|------------------------|--------------------------|--------------------|
| First Generation     |         |                 |                         |                        |                          |                    |
| Chlorpropamide       | Low     | qd.             | 100 to 500              | 36                     | up to 60                 | yes                |
| Tolazamide           | Low     | qd.-b.i.d.      | 100 to 1000             | 7                      | 12 to 24                 | yes                |
| Tolbutamide          | Low     | b.i.d.-t.i.d.   | 250 to 2000             | 4.5-6.5                | 6 to 12                  | no                 |
| Second Generation    |         |                 |                         |                        |                          |                    |
| Glimepiride          | High    | qd.             | 1 to 4                  | 9                      | ≥ 24                     | yes                |
| <b>Glipizide (c)</b> | High    | qd.-b.i.d.      | 2.5 to 20               | 2 to 4                 | 10 to 16                 | no                 |
| Glipizide XL         | High    | qd.             | 5 to 10                 | 2 to 5                 | ≥ 24                     | no                 |
| <b>Glyburide</b>     | High    | qd.-b.i.d.      | 1.25 to 10              | 10                     | ≥ 24                     | weak               |

(a) Hebel 1996:130e-130m

(b) Reflects commonly used doses (maximum dose not shown). The maximum daily dose may be necessary for some patients

(c) Absorption is delayed by food, take 30 minutes before a meal.

**(d) Bold type indicates most commonly prescribed at SFGH**

### B. Metformin

- Metformin is a biguanide oral antihyperglycemic agent. The major blood glucose lowering effect is through decreasing hepatic glucose production with some decrease in peripheral insulin resistance.
- Metformin may be considered for use as monotherapy in lieu of sulfonylurea in selected patients. It may be used in combination with an oral sulfonylurea, acarbose, thiazolidinedione, or insulin in the event that monotherapy fails to achieve HbA<sub>1c</sub> goal. The effect of Metformin on glycemic control is additive, due to its different mechanism of action.

- c. Use of metformin results in less weight gain, and a reduction in plasma triglycerides may also occur.
- d. **SIDE EFFECTS:** The patient should be advised of the transient, dose-related gastrointestinal side effects (e.g., diarrhea, nausea, vomiting, bloating, flatulence, and anorexia).
- e. **CONTRAINDICATIONS:** Patients at risk for lactic acidosis should not receive metformin. Specific contraindications include acute or chronic metabolic acidosis, renal dysfunction (SCr >1.5mg/dL [males] and SCr >1.4 mg/dL [females]), and patients with congestive heart failure requiring pharmacological management. Metformin use should be avoided in patients with hepatic disease or excessive ethanol intake or in any patient with a condition associated with hypoxemia, dehydration, or sepsis. Metformin use should be temporarily discontinued at the time of or prior to intravascular radiocontrast studies or surgical procedures. Monitoring renal function to prevent lactic acidosis, especially in the elderly, is important.

### Metformin Drug Therapy(a)

| Dose  | Cautions/Monitor   |
|---|--|
| <ul style="list-style-type: none"> <li>• Check SCr and LFTs prior to starting therapy</li> <li>• Start 500-850 mg qam with meals</li> <li>• ↑ dosage as needed by 500-850 mg every 2 weeks (split dose b.i.d.)</li> <li>• The usual maintenance dose is 850 mg b.i.d. with meals</li> <li>• Maximum dose: 2550 mg/day (850mg t.i.d.)</li> </ul> | <ul style="list-style-type: none"> <li>• Inform patient to take with food to avoid possible GI symptoms (diarrhea, nausea, vomiting, bloating, flatulence, anorexia)</li> <li>• Counsel patient to be aware of possible metallic taste in the mouth</li> <li>• <b>Monitor BUN, creatinine, and electrolytes within 2 weeks of initiation or dosage change</b></li> <li>• Caution patients against use with alcohol as alcohol potentiates the effects of metformin on lactate metabolism.</li> </ul> |

(a) Adapted from Hebel 1998:130n-130u

### C. Alpha-glucosidase inhibitors e.g. Acarbose

- a. Acarbose is an alpha-glucosidase inhibitor that delays the digestion of carbohydrates thereby decreasing postprandial hyperglycemia.
- b. Should not be used as monotherapy. The effect of acarbose on glycemic control is additive, due to its different mechanism of action.
- c. Acarbose should be considered for patients with elevated postprandial plasma glucose or impaired glucose tolerance.
- d. **SIDE EFFECTS:** The patient should be advised of the transient, dose-related GI side effects (diarrhea, abdominal pain, and flatulence). Initiating therapy at a reduced dosage may reduce these side effects.
- e. If a patient becomes hypoglycemic from a combination of acarbose and a hypoglycemic agent, oral glucose (dextrose) should be given to treat the reaction, since sucrose (table sugar) or a complex carbohydrate (starches) will not be readily effective.
- f. Discontinue acarbose if glycemic control fails to improve over 3 to 6 months.

### Acarbose Drug Therapy(a)(b)

| Dose   | Cautions/monitor  | Contraindications   |
|--|---|---|
| <p><b>Initial starting dose:</b><br/>25 mg t.i.d.</p> <p><b>Alternate starting dose:</b><br/>25 mg qd. x 1-2 weeks<br/>followed by 25 mg b.i.d. for<br/>1-2 weeks with subsequent<br/>increase to 25 mg t.i.d.<br/>Once a 25mg t.i.d. dosing<br/>regimen is reached, further<br/>increases may be made at a<br/>4-8 week interval.</p> <p><b>Maintenance dosage:</b><br/>50 mg t.i.d.</p> <p><b>Maximum dosage:</b><br/>100 mg t.i.d.<br/>( &lt; 60 kg 50 mg t.i.d.)</p> | <ul style="list-style-type: none"> <li>• Inform patient to take dose with the first bite of each main meal</li> <li>• Patients should maintain a diet high in complex carbohydrates and low in simple sugars to achieve maximum benefit and minimize adverse effects</li> <li>• Inform patient of possible GI symptoms (diarrhea, abdominal pain, flatulence) that may occur during the first few weeks of therapy</li> <li>• Acarbose, especially at doses greater than 50 mg t.i.d., may cause serum AST/ALT elevation; monitor serum levels every 3 months during the first year of treatment</li> <li>• Renal impairment has been shown to increase plasma concentrations of acarbose; its use is not recommended in these patients.</li> </ul> | <ul style="list-style-type: none"> <li>• Hypersensitivity to the drug</li> <li>• Presence of diabetic ketoacidosis or cirrhosis</li> <li>• Presence of intestinal complications (ulcers, obstructions, digestion or absorption disorders).</li> </ul> |

(a) Adapted from Hebel 1998:129a-129e

(b) Martin & Montgomery 1996

#### D. Thiazolidinediones (“glitazones”)

1. Rosiglitazone and pioglitazone are in the drug class known as thiazolidinediones. They work by enhancing insulin sensitivity in skeletal muscle, hepatic, and adipose tissue without directly stimulating insulin secretion from the pancreas. They also have a small effect on inhibiting hepatic glucose output.
2. Rosiglitazone and pioglitazone should be reserved for selected patients due to their modest effect on reducing HbA<sub>1c</sub> compared to sulfonylureas or metformin, unknown long-term safety profile, and high cost.
3. Rosiglitazone and pioglitazone should not be used as monotherapy since there is no advantage over sulfonylureas or metformin in efficacy, as measured by change in HbA<sub>1c</sub>.
4. Rosiglitazone and pioglitazone should not be used if the patient has evidence of liver disease or an ALT > 2.5x the upper limit of normal.

#### 5. SIDE EFFECTS:

*False anemia:* Plasma volume has been shown to increase with these agents, causing reduction in hematologic parameters such as hemoglobin and hematocrit.

*CHF Exacerbation:* Due to plasma volume expansion (as above)

*Ovulation Inducer:* May induce ovulation in premenopausal anovulatory patients. Need for contraception should be discussed with the patient as appropriate.

*Weight Gain*

*May elevate total cholesterol, HDL and LDL*

**Thiazolidinedione (“glitazones”) Drug Therapy**

| <b>DOSE</b>   | <b>CAUTIONS/MONITOR</b>   | <b><u>WARNINGS</u></b>  |
|---|---|---|
| <p>If using in combination with a sulfonylurea, metformin, or insulin, the current dose should be continued when adding a glitazone.</p> <p><u>Rosiglitazone</u><br/>Start at 4mg/day (single dose or divided into 2 doses). May increase to 8mg/day (single dose or divided into 2 doses) after 12 weeks if glycemic control is inadequate. Maximum dose is 8mg daily (single or bid dosing) and can be given without regard to meals. Dosage adjustment is not required in patients with renal insufficiency</p> <p><u>Pioglitazone</u><br/>Start at 15 or 30mg once daily. Maximum dose is 45mg daily and can be given without regard to meals. Insulin dosage should be decreased by 10-25% after fasting glucose levels decrease to less than 100mg/dl. Dosage adjustment is not required in patients with renal insufficiency</p> | <p>Liver function test abnormalities, jaundice, hepatitis, liver transplant and death have been reported with troglitazone.</p> <p><u>Rosiglitazone and pioglitazone</u><br/>Do not initiate in patients with ALT &gt; 2.5x the upper limit of normal. Liver function tests and bilirubin should be tested every 2 months for 1 year, then periodically thereafter. If ALT is &gt; 3x upper limit of normal, recheck another level as soon as possible. If ALT remains &gt; 3x the upper limit, discontinue use.</p> <p>Monitor for signs and symptoms suggestive of hepatic dysfunction such as nausea, vomiting, abdominal pain, fatigue, anorexia, dark urine or jaundice. Patients should be instructed to inform their physician should they develop these symptoms.</p> | <p>Plasma volume may increase with rosiglitazone or pioglitazone thereby potentially exacerbating congestive heart failure. Patients with New York Heart Association Class III and IV were not included in clinical trials therefore use in these patients is not recommended. Patients with NYHA Class I or II should have their fluid status monitored closely.</p> |

**E. Repaglinide (Prandin) – this is not currently on our formulary so ignore section for now**

- a. Repaglinide is a newly marketed oral hypoglycemic agent indicated for treatment of type 2 diabetes either as or in combination with metformin for those who failed treatment with either agent alone. Like sulfonylureas, it works by stimulating pancreatic secretion of insulin.
- b. Repaglinide has a faster onset and shorter duration of action than sulfonylureas, therefore postprandial glucose is affected to a greater extent than fasting blood glucose.

- c. The effect on HbA<sub>1c</sub> is variable and seems to depend on whether the patient has been previously treated with another oral agent. Patients previously treated with an oral agent had a HbA<sub>1c</sub> reduction of approximately 0.2 to 0.3 percent. Patients not previously treated with an oral agent experienced a decrease in HbA<sub>1c</sub> of approximately 1.7 to 1.9 percent.
- d. The dose is administered 15 minutes before each meal. Dosing may be individualized so that if a patient misses a meal, the corresponding dose would be omitted. Repaglinide may be used in patients with renal or hepatic impairment; however, dosage adjustments need to be made with caution.
- e. **SIDE EFFECTS:** The most commonly reported adverse effect of repaglinide was hypoglycemia and was generally comparable to that seen with sulfonylureas.

## F. Insulin

a. In close collaboration with the clinic's diabetes nurse, and after approval from patient's PCP, consider starting insulin treatment when glycemic control can no longer be maintained with a combination of oral medications. Increasing fasting glucose levels, unexplained weight loss, and traces of ketonuria are clinical indicators of disease progression. Refer to appendix A on how to generate an action plan.

b. Winning a patient's confidence at this time ensures success. The fears associated with injections need to be discussed and the benefits of insulin therapy stressed. Correct insulin injection technique, how to mix insulin types, and the relationship of the insulin being used to meals and exercise should be reviewed. Fears about weight gain, hypoglycemia, and other adverse effects should be addressed in a calm and sympathetic manner. Patients must be willing to do HGM if started on insulin. Make sure they are comfortable w/HGM before instituting injections.

c. Initiate insulin gradually -- For a patient who takes maximal doses of oral antidiabetic medications in combination, insulin therapy can be initiated more gradually than in an acute situation. As insulin is introduced, oral therapies should be continued in their current dose. The following insulin options are available in the CHN formulary:

1. NPH insulin, lente, or ultralente at bedtime or in the morning.
2. Human analogue insulin 70/30 mixture before supper or before breakfast, or both
3. Basal insulin glargine (Lantus) at bedtime, before supper, or in the morning (**this is restricted on the formulary** for patients who have had hypoglycemic episodes with other insulin types and must be prescribed by an endocrinologist or obstetrician)

d. Patients often have high fasting glucose levels, so basal insulin or insulin at bedtime is a good choice. If intermediate insulin is chosen (NPH), the amount can be calculated by figuring the dose according to a ratio of 0.5 U/kg and using 25% to 30% of that amount as the initial dose. Average starting dose is 10U.

**Ex)** Mr. Brown is an 85 kg man.  $0.5\text{U/kg} = 42.5$  or 42U.  $25\%$  of 42 = 10.5 or 10U. So, Mr. Brown could start with 10U of NPH at bedtime or 10U of Ultralente in the morning or at bedtime.

e. The insulin dose is increased slowly on the basis of the results of blood glucose self-monitoring before breakfast and can be increased every 2 to 4 weeks until the fasting glucose



goal is reached. In general, the target for fasting plasma glucose in our patients should be between 100 and 150 mg/dL.

f. If glycemic control cannot be achieved with once daily injections, ask patient to check post-prandial sugars in addition to fasting sugars (pre-breakfast & post-dinner, for example). If post-prandial sugars are elevated, can consider starting a split mixed regimen with 70/30. (See below for instructions)

g. Insulin, along with some of the oral medications, can cause weight gain. Metformin hydrochloride (Glucophage) can attenuate some of this weight gain (i.e. instead of gaining 3-4kg, a patient may gain 1-2kg.)

h. Combining sensitizers (Metformin or “glitazones”) with insulin therapy results in improved glucose control and lower insulin doses.

i. Don't forget to order sharps containers, alcohol prep pads, syringes, etc. when starting insulin. Either the IDEALL clinician or the Diabetes Educator can provide glucometer and insulin injection education.

### Comparison of Insulin Preparations (a)(b)

| Insulin                                   | Onset (hrs) | Peak (hrs) | Duration (hrs) (c) | Compatible Mixed with: | Appearance |
|---|-------------|------------|--------------------|------------------------|------------|
| <b>RAPID ACTING</b>                       |             |            |                    |                        |            |
| Regular                                   | 0.5-1       | 1-5        | 6-10               | all                    | Clear      |
| Lispro<br>(not widely used yet in type 2) | 0.25-0.5    | 0.5-2.5    | 3-6.5              | Ultralente-NPH (d)     | Clear      |
| <b>INTERMEDIATE</b>                       |             |            |                    |                        |            |
| NPH (most common choice for Type 2 DM)    | 1-2         | 6-14       | 16-24+             | regular                | Cloudy     |
| Lente                                     | 1-3         | 6-14       | 16-24+             | regular                | Cloudy     |
| <b>LONG ACTING</b>                        |             |            |                    |                        |            |
| Glargine (N/A on CHN formulary)           | 1           | None       | 24                 |                        |            |
| Ultralente                                | 4-6         | 8-20       | 24-28              | regular                | Cloudy     |

(a) Adapted from AHFS Drug Information, American Society of Health-System Pharmacists, Inc., 1998

(b) Onset, peak, and duration are parameters for non-human insulin preparations; in general, human preparations have shorter times of duration

(c) Duration may depend on type of preparation and route of administration as well as patient related variables. In general, the larger the dose of insulin, the longer the duration of activity

(d) The effects of mixing insulin Lispro with insulins of animal source or insulins produced by manufacturers other than Eli Lilly have not been studied.



## Insulin Regimen Examples

|   |  |
|---|--|
| <p><b>Bedtime Dosing of NPH/Lente or Ultralente Insulin in Addition to an Oral Agent</b><br/>qhs NPH most common at SFGH!</p> | <ul style="list-style-type: none"> <li>• Begin with around 10 units at bedtime (calculate the morning glucose/18 or 0.5U/kg divided by 4) (a)</li> <li>• Verify that the pre-dinner glucose remains in control</li> </ul>                                      |
| <p><b>Split Mixed Regimen with NPH/Regular (c)</b></p>  | <ul style="list-style-type: none"> <li>• Inject 2/3 of the total insulin requirement in the morning, with a NPH/Regular ratio of 70:30</li> <li>• Inject 1/3 of the total insulin requirement in the evening, with a NPH/Regular ratio of 50:50 (b)</li> </ul> |
| <p><b>Once-daily Morning NPH or Ultralente insulin (without oral meds)</b></p>  | <ul style="list-style-type: none"> <li>• Good for elderly or non-adherent patients</li> <li>• Inject 30 to 60 minutes before breakfast</li> <li>• Usual dosage (see above calculations). Can ramp up dose q week.</li> </ul>                                   |

(a) Adapted from: Edelman SV, White D, Henry RR. Intensive insulin therapy for patients with type 2 diabetes.

**Current Opinion in Endocrinology and Diabetes** 1995;2:333-340

(b) These are a few examples, optimal regimen depends on the individual patient

(c) Always counsel patients to mix regular insulin in syringe first, followed by NPH; mixtures of regular and lente insulins should be injected immediately. Inject regular insulin 30 to 60 minutes before a meal

## General Guidelines for Insulin Adjustment in the Type 2 DM Patient on Split Regimens

- |  |
|--|
| <ul style="list-style-type: none"> <li>• If the morning fasting blood sugar is off target, adjust the evening NPH or switch evening NPH to bedtime</li> <li>• If the evening serum glucose is off target, adjust the morning NPH</li> <li>• If the evening glucose continues to be off target, have the patient check the pre-lunch glucose</li> <li>• If the pre-lunch glucose is off target, adjust the morning Regular insulin</li> <li>• If the bedtime glucose is off target, adjust the evening Regular insulin</li> </ul> |
|--|

## Drug-Drug Interactions

### Drugs That May Impair Glucose Tolerance

|   |
|---|
| <p>Beta-blockers, calcium antagonists, Diaz oxide, diuretics, estrogens, glucocorticoids, isoniazid, l-asparaginase, niacin, oral contraceptives, pentamidine, phenothiazines, phenytoin, rifampin, sympathomimetics, thyroid products.</p> |
|---|

## Drug Interactions with Oral Hypoglycemic Agents

|                      |   |
|----------------------|---|
| <b>Sulfonylureas</b> | There is a potential for drug interactions between sulfonylureas and highly protein bound drugs (e.g., nonsteroidal anti-inflammatories, salicylates, sulfonamides, chloramphenicol, probenecid, monoamine oxidase inhibitors, tricyclic antidepressants, beta-blockers). These interactions are more likely to occur with the first generation agents. Patients need to be monitored for hypoglycemia or loss of glucose control when these agents are added or withdrawn. |
| <b>Biguanides</b>    | Cationic drugs that are eliminated by renal tubular secretion (e.g. amiloride, digoxin, morphine, procainamide, quinidine, ranitidine, triamterene, trimethoprim, vancomycin) can potentially interact with metformin by competing for elimination by the renal tubular transport system.   |
| <b>Repaglinide</b>   | Repaglinide is metabolized by CYP 3A4, therefore drugs which induce (e.g. troglitazone, rifampin, barbiturates) or drugs which inhibit CYP 3A4 (e.g. ketoconazole, erythromycin) may result in a decreased or increased concentration of repaglinide respectively. Repaglinide is also > 98 percent protein to albumin, therefore other highly protein bound drugs may interact.  |

## Appendix C: Common Hypertension and Cholesterol Medications & Side Effects

### Antihypertensive Drugs

| <b>Class</b>  | <b>Drug (Trade Name)</b>  | <b>Side Effects</b>  |
|---|---|--|
| Thiazide diuretics  | Hydrochlorothiazide<br>chlorthiazide (Diuril)<br>metolazone (Zaroxolyn)   | hypotension, hypokalemia,<br>orthostatic hypotension, dizziness  |
| Loop Diuretics  | bumetanide (Bumex)<br>furosemide (Lasix)  | hypotension, dizziness, blurred<br>vision, rash, orthostatic hypotension   |
| Potassium-sparing<br>diuretics                                    | amiloride (Midamor)<br>triamterene (Dyrenium)   | dizziness, fatigue, hyperkalemia,<br>dehydration   |
| Aldosterone receptor<br>blockers                                  | spironolactone (Aldactone)  | hyperkalemia, dizziness, nausea,<br>breast tenderness in females,<br>gynecomastia in males, rash                         |
| Beta-blockers   | atenolol (Tenormin)<br>metoprolol (Lopressor)<br>nadolol (Corgard)<br>propranolol (Inderal)<br>timolol (Blocadren)                        | bradycardia, hypotension, heart<br>block, dizziness, confusion   |
| Combined alpha- and<br>beta-blockers                              | carvedilol (Coreg)<br>labetalol (Normodyne)   | chest pain, dizziness, fatigue,<br>hyperglycemia, diarrhea, respiratory<br>tract infections, bradycardia,<br>hypotension |
| Ace Inhibitors  | benazepril (Lotensin)<br>captopril (Capoten)<br>enalapril (Vasotec)<br>fosinopril (Monopril)<br>quinapril (Accupril)<br>ramipril (Altace) | rash, hyperkalemia, cough,<br>dizziness, abnormal taste,<br>hypotension, syncope   |
| Angiotension II<br>antagonists                                    | losartan (Cozaar)<br>valsartan (Diovan)   | hypotension, dizziness, fatigue,<br>insomnia   |
| Calcium channel blockers<br>(non-Dihydropyridines)                | diltiazem extended release<br>(Cardizem CD)<br>verapamil (Calan, Isoptin)<br>verapamil extended release<br>(Calan SR, Isoptin SR)         | gingival hyperplasia, sinus<br>bradycardia, hypotension, peripheral<br>edema, headache, constipation                     |
| Calcium channel blockers<br>(Dihydropyridines)                    | amlodipine (Norvasc)<br>felodipine (Plendil)<br>isradipine (Dynacirc CR)<br>nifedipine long-acting<br>(Adalat CC, Procardia XL)           | peripheral edema, flushing,<br>headache, tachycardia, dizziness,   |
| Alpha 1 – blockers  | doxazosin (Cardura)<br>prazosin (Minipress)<br>terazosin (Hytrin)   | dizziness, headache, orthostatic<br>hypotension, tachycardia,<br>palpitations, rash, nausea, vomiting,                   |
| Central alpha 2 – agonists<br>and other centrally acting<br>drugs | clonidine (Catapres)<br>clonidine patch (Catapres-TTS)<br>methyldopa (Aldomet)<br>reserpine<br>guanfacine                                 | drowsiness, dizziness, bradycardia,<br>orthostatic hypotension, rash,<br>peripheral edema,                               |

|                     |   |  |
|---------------------|---|--|
| Direct vasodilators | hydralazine (Apresoline)<br>minoxidil (Loniten) | rash, tachycardia, peripheral edema,<br>fatigue, |
|---------------------|---|--|

*\*Adapted from Drug Information Handbook, 11th Edition, 2003. Lexi-Comp, Inc., APhA.  
Authors: Lacy, CF, Armstrong, LL, Goldman, MP, and Lance, LL.*

## Lipid-Lowering Agents

| Class                   | Drug (Trade)   | Side Effects  |
|-------------------------|--|---|
| Fibric Acid derivatives | clofibrate (Atromid-S)<br>gemfibrozil (Lopid)  | GI upset, diarrhea, nausea  |
| Nicotinic Acid          | Niacin   | flushing, nausea, flatulence,<br>headache, bloating   |
| Bile Acid Resins        | colestipol (Colestid)<br>colesevelam (WelChol)<br>cholestyramine (Questran)  | constipation, GI Upset, nausea,<br>bloating   |
| HMG-CoA RI (statins)    | atorvastatin (Lipitor)<br>fluvastatin (Lescol)<br>lovastatin (Mevacor)<br>pravastatin (Pravachol)<br>simvastatin (Zocor) | GI Upset, rash, headache, chest<br>pain, respiratory infection<br><br><b>lovastatin &amp; simvastatin – myalgias,<br/>muscle weakness</b> |

*\*Adapted from Drug Information Handbook, 11th Edition, 2003. Lexi-Comp, Inc., APhA.  
Authors: Lacy, CF, Armstrong, LL, Goldman, MP, and Lance, LL.*

## Appendix D. ATDM Progress Note



**Community Health Network**  
**San Francisco General Hospital**  
**Medical Center**

NAME \_\_\_\_\_  
 DOB \_\_\_\_\_  
 MRN \_\_\_\_\_  
 PCP \_\_\_\_\_

**TELEPHONE DIABETES MANAGEMENT**  
**PROGRESS NOTE**  
**IDEALL Health Project**

Client ID / Addressograph or label \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Name of Care Manager: \_\_\_\_\_

Date of ATDM\* triggering callback: \_\_\_\_\_ Name of IDEALL Staff: \_\_\_\_\_

Reason(s) for telephone follow-up: (1) \_\_\_\_\_

(2) \_\_\_\_\_

Length of telephone call: \_\_\_\_\_ minutes



**Counseling/ Education this call (check all that apply):**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Diabetes basics    | <input type="checkbox"/> Exercise                       | <input type="checkbox"/> Medications             |
| <input type="checkbox"/> Glucose monitoring | <input type="checkbox"/> Smoking                        | <input type="checkbox"/> Pain control            |
| <input type="checkbox"/> Nutrition          | <input type="checkbox"/> Foot care                      | <input type="checkbox"/> Coping/stress reduction |
| <input type="checkbox"/> Sexual function    | <input type="checkbox"/> Symptoms of hypo/hyperglycemia | <input type="checkbox"/> Sick care               |

**Referrals this call (check all that apply):**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Ophthalmology     | <input type="checkbox"/> Nutritionist          | <input type="checkbox"/> Smoking Cessation |
| <input type="checkbox"/> Podiatry          | <input type="checkbox"/> Exercise Group        | <input type="checkbox"/> Urgent Care       |
| <input type="checkbox"/> IDEALL Pharmacist | <input type="checkbox"/> Social Worker         | <input type="checkbox"/> *Other _____      |
| <input type="checkbox"/> Stress Reduction  | <input type="checkbox"/> Primary Care Provider |  |
| <input type="checkbox"/> *Mental Health    | <input type="checkbox"/> Diabetes Educator     | <i>* With PCP approval ONLY</i>            |

**Medication Activity (check all that apply):**

CHANGE MEDS  Diabetes  Blood Pressure  Lipids  Aspirin  Other \_\_\_\_\_

Reason/ comments: \_\_\_\_\_

REFILL MEDS  Diabetes  Blood Pressure  Lipids  Aspirin  Other \_\_\_\_\_

REVIEW MEDS  Diabetes  Blood Pressure  Lipids  Aspirin  Other \_\_\_\_\_

**Action Plan Activity (check all that apply):**

- Discussed last action plan
- Last Action Plan achieved?  Yes  No  Partially Comment: \_\_\_\_\_
- Made a new action plan Confidence score (1-10) \_\_\_\_\_
- New action plan \_\_\_\_\_

**Problems, with assessment and plans:**

1. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
2. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Communication with PCP (check all that apply):**

- Had a discussion with PCP  Message left with PCP  Progress note will be sent to PCP

\_\_\_\_\_ Follow-up: \_\_\_\_\_  
 IDEALL Staff Member Staff Member CHN ID#

\_\_\_\_\_ Follow-up: \_\_\_\_\_  
 Supervising Care Manager Care Manager CHN ID#

\*ATDM = automated telephone disease management

Hospital produced interim form. (08/03) **Medical Record Original Photocopy if necessary for department use.**

Appendix E. Pharmacy Progress Note





**Community Health Network  
San Francisco General Hospital  
Medical Center**

**DIABETES GROUP  
PHARMACIST PROGRESS NOTE  
IDEALL Health Project**

NAME

DOB

MRN

PCP

Client ID / Addressograph or label

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Site:  FHC  GMC Session # \_\_\_\_\_ Group # \_\_\_\_\_

Pharmacist: \_\_\_\_\_



INTERVENTION/ISSUE (check all that apply) :

|  |  |
|--|--|
| <input type="checkbox"/> Medication Instructions/ Review | <input type="checkbox"/> Refill Issues             |
| <input type="checkbox"/> Insurance Issues                | <input type="checkbox"/> OTC Medications           |
| <input type="checkbox"/> Herbals/Dietary Supplements     | <input type="checkbox"/> Cost Issues               |
| <input type="checkbox"/> Medication Side Effects         | <input type="checkbox"/> Drug-Drug Interactions    |
| <input type="checkbox"/> Drug-Food Interactions          | <input type="checkbox"/> Drug-Disease Interactions |
| <input type="checkbox"/> Other:                          |  |

**Problems, with assessment and plans:**

1. S/O (Evidence - Subjective/Objective) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ On aspirin?  Yes  No

2. A (Assessment) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. P (Plan) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Medications changed this visit (check all that apply and describe in above plan):

Diabetes  Blood Pressure  Lipids  Aspirin  Other

Performed "Teach-Back" Method?  Yes  No

Client and provider agree on plan?  Yes  No

\_\_\_\_\_  
Pharmacist Signature CHN ID# Follow-up: \_\_\_\_\_



Appendix F. Patient Follow-up Letter



EL PROYECTO DE SALUD IDEALL

理想健康計劃

IDEALL HEALTH PROJECT



IDEALL Health Project  
San Francisco General Hospital  
Box 1364  
San Francisco, CA 94143

Dear \_\_\_\_\_,

My name is \_\_\_\_\_ from the IDEALL Project at SF General Hospital.  
My job is to help you take better care of your health.

I am sending this postcard to follow up with you about your health and your recent Tel-Med call. Unfortunately, I have been unable to reach you by phone.

Please call me at my direct phone number: (415) 206-8829.

Sincerely,

\_\_\_\_\_

Nurse Practitioner, IDEALL Health Project