EMR-ization of Standardized Malnutrition Screening and Assessment in Interdisciplinary Team-Based Primary Care

Presenter: Denis Tsang, Outcome Measures Co-Lead

Michele MacDonald Werstuck, Chair

Dietitians of Canada Primary Health Care Action Group

Disclosures

- Faculty: Denis Tsang and Michele MacDonald Werstuck
- Relationship with Commercial Interests:

  Speakers Honorarium from Nestle Health Sciences for webinars on malnutrition and dysphagia

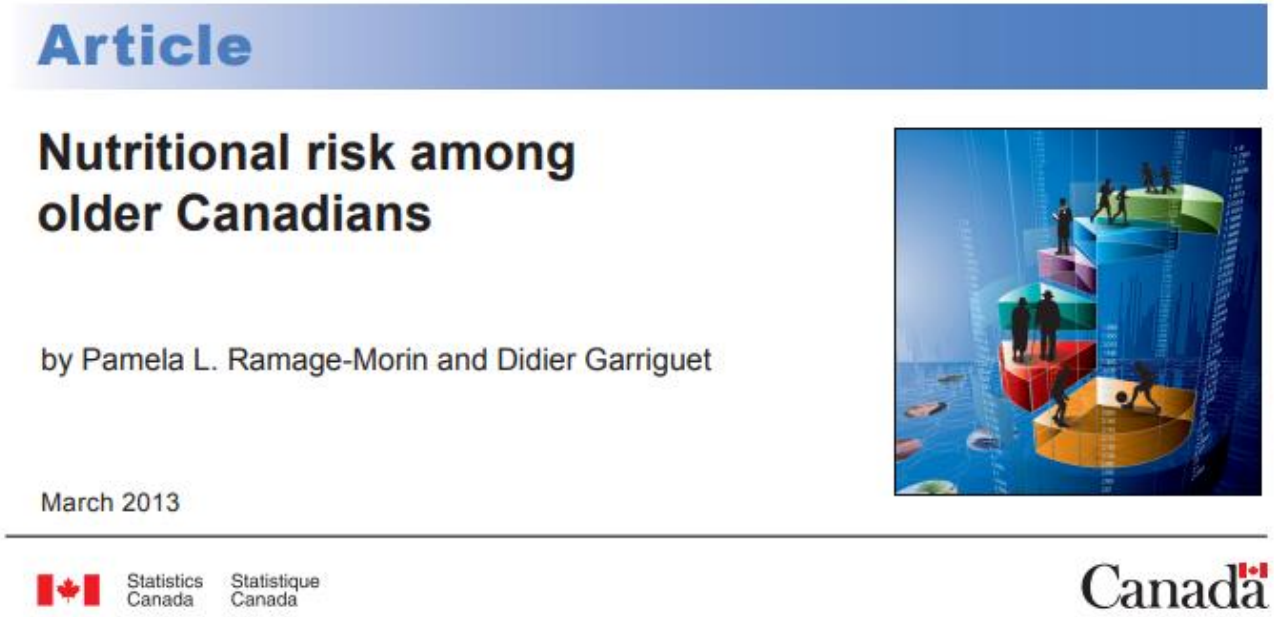
  Research Collaboration with Nestle Health Sciences on dietitians perceptions of dysphagia assessment and management in primary care
- Potential for Conflict of Interest: None
- Mitigating Potential Bias:

  Dissemination of validated screening and assessment instruments without specific recommendations on selection

  Emphasis on evidenced-based clinical practice and relevant literature on appropriate use of select instruments

EMR Tools to Detect Malnutrition in Family Practice

1 in 3 Canadian Seniors are at Nutritional Risk


Article

Nutritional risk among older Canadians

by Pamela L. Ramage-Morin and Didier Garriguet

March 2013

Statistics Canada Statistique Canada

Canada

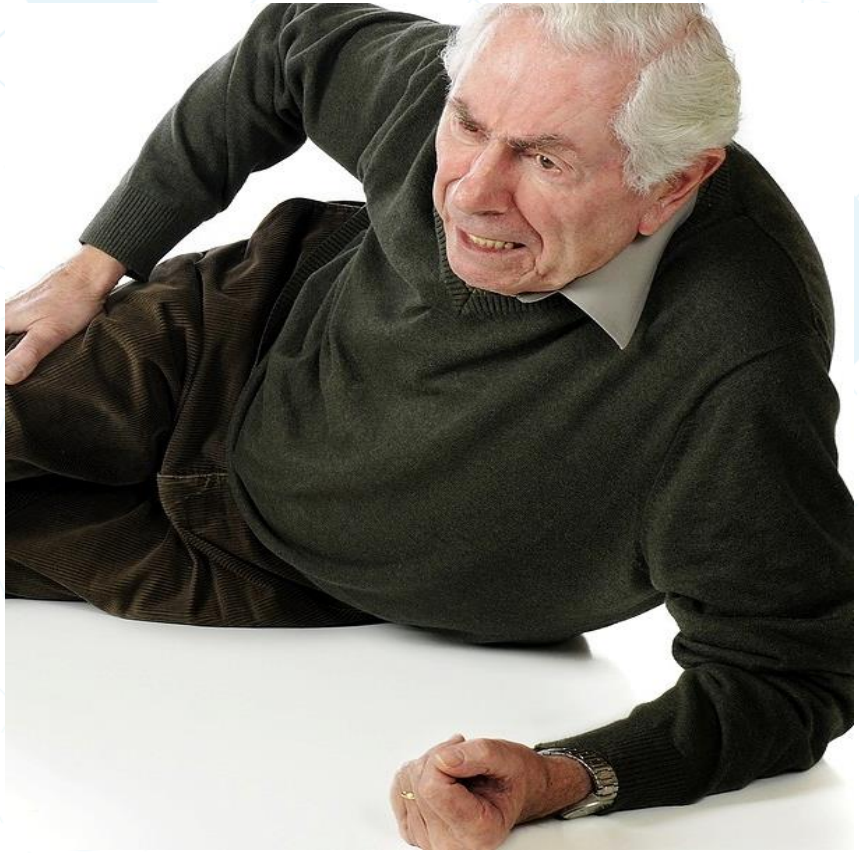
34% Canadians >65 yrs are at nutritional risk

- More common in women
- Depression, grief, loneliness
- Living alone, limited social supports
- Unable to drive
- Low income
- Poor oral health
- Medication use

- 14.9% of Hamiltonians > 65 yrs
- 9 million seniors expected by 2031 (Stats Can)

Ramage-Morin PL, Garriquet, D. Nutritional Risk among Older Canadians Statistics Canada. Health Rep Mar 2013; 20;24(3): 3-13

Nutrition Risk and Falls



- *Most falls are preventable*
- *Poor nutritional health is a modifiable risk factor for falls*

Malnourished seniors are 73% more likely to fall than well-nourished seniors

Chien M-H, Guo H-R (2014) Nutritional Status and Falls in Community-Dwelling Older People: A Longitudinal Study of a Population-Based Random Sample. PLoS ONE 9(3): e91044. doi:10.1371/journal.pone.0091044

1 of 2 Adults are Malnourished on Hospital Admission

- Worsen during their stay
- Stay 2-7 days longer
- High 30 day readmission rates

- Greater nutrition attention needed of vulnerable older adults

Malnutrition at hospital admission: Contributors and Effect on Length of Stay. A Prospective Cohort Study from the Canadian Malnutrition Task Force. JPEN Jan 2015.
wwwnutritioncareincanada.ca

Encounter Assistant in TELUS PSS

1. Malnutrition Screening
2. Malnutrition Assessment

1. Malnutrition Screening

Malnutrition Screening

Sep 20, 2018 Malnutrition Screening (v.7 - Dec 2016) DHT

Clinical Interaction Demographics

Clinician: Denis Tsang

Patient's Age: 64

Patient's Gender: F

Reason for Screening

- ☐ Recent Hospitalization
  - Date of Discharge: mmm d, yyyy
- ☐ Memory Clinic
- ☐ Identified by EMR Query
  - Specify:
- ☐ Other
  - Specify:
- ☐ Referral from MD/IHP

Screening Tools

- ☐ CNST (Post-Discharge)
- ☐ MNA-SF (Memory Clinic)
- ☐ SCREEN II

Clinical Note

☐ Refusal for RD Referral

Personal Message

☐ Send Yourself a Message as a Reminder

Finish

Sep 20, 2018 Malnutrition Screening (v.7 - Dec 2016) DHT

Clinical Interaction Demographics

Clinician: Denis Tsang

Patient's Age: 64

Patient's Gender: F

Reason for Screening

- [ ] Recent Hospitalization

Date of Discharge: mmm d, yyyy

- [ ] Memory Clinic
- [ ] Identified by EMR Query

Specify:

- [ ] Other

Specify:

- [ ] Referral from MD/IHP

Screening Tools

- [x] CNST (Post-Discharge)
- [ ] MNA-SF (Memory Clinic)
- [ ] SCREEN II

CNST

- [x] Initial Screening
- [ ] Re-Screening

Initial Screening

Date of Initial Screening: Sep 20, 2018

- [ ] Have you lost weight in the past 6 months WITHOUT TRYING to lose this weight?

*If the patient reports a weight loss but gained it back, consider it as NO weight loss.

- [ ] Have you been eating less than usual FOR MORE THAN A WEEK?

Score of Initial CNST: 0.0

Score = 2 (At Nutrition Risk - Refer to RD)

Score = 1 (Not At Nutrition Risk - Re-Screen in 1 month)

Score = 0 (Not At Nutrition Risk - No action required)

View CNST Questionnaire

- [ ] Refer to RD
- [ ] Re-Screening Required (in 1 month)

Sep 20, 2018 Malnutrition Screening (v.7 - Dec 2016) DHT

Clinical Interaction Demographics

Clinician: Denis Tsang

Patient's Age: 64

Patient's Gender: F

Reason for Screening

- [ ] Recent Hospitalization

Date of Discharge: mmm d, yyyy

- [ ] Memory Clinic
- [ ] Identified by EMR Query

Specify:

- [ ] Other

Specify:

MD/IHP

Screening Tools

- [x] CNST (Post-Discharge)
- [ ] MNA-SF (Memory Clinic)
- [ ] SCREEN II

CNST

- [ ] Initial Screening
- [x] Re-Scre...

Re-Screening

Date of Re-Screening: mmm d, yyyy

- [ ] Have you lost weight in the past 1 month WITHOUT TRYING to lose this weight?

*If the patient reports a weight loss but gained it back, consider it as NO weight loss.

- [ ] Have you been eating less than usual FOR MORE THAN A WEEK?

Score of Re-Screening CNST: 0.0

Score = 2 (At Nutrition Risk - Refer to RD)

Score = 0 or 1 (Not At Nutrition Risk - No action required)

View CNST Questionnaire

- [ ] Refer to RD
- [ ] Re-Screening Completed within 1 Month

Sep 20, 2018 Malnutrition Screening (v.7 - Dec 2016) DHT

Clinical Interaction Demographics

Clinician: Denis Tsang

Patient's Age: 64

Patient's Gender: F

Reason for Screening

- [ ] Recent Hospitalization

Date of Discharge: mmm d, yyyy

- [ ] Memory Clinic
- [ ] Identified by EMR Query

Specify:

- [ ] Other

Specify:

- [ ] Referral from MD/IHP

Screening Tools

- [ ] CNST (Post-Discharge)
- [x] MNA-SF (Memory Clinic)
- [ ] SCREEN II

MNA-SF

Insert MNA - SF Form

Score:

Score < 12 (At Risk of Malnutrition - Refer to RD)

- [ ] Refer to RD

Clinical Note

- [ ] Refusal for RD Referral

Personal Message

- [ ] Send Yourself a Message as a Reminder

Finish

Mini Nutritional Assessment

MNA®

Nestlé NutritionIns

Last name: Test First name: Pss

Sex: F Age: 64 Weight, kg: 81.2 Height, cm: 174 Date: Se

Complete the screen by filling in the boxes with the appropriate numbers. Total the numbers for the final sc

Screening

A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, c swallowing difficulties?
- 0 = severe decrease in food intake
- 1 = moderate decrease in food intake
- 2 = no decrease in food intake

B Weight loss during the last 3 months
- 0 = weight loss greater than 3 kg (6.6 lbs)
- 1 = does not know
- 2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
- 3 = no weight loss

C Mobility
- 0 = bed or chair bound
- 1 = able to get out of bed / chair but does not go out
- 2 = goes out

D Has suffered psychological stress or acute disease in the past 3 months?
- 0 = yes
- 2 = no

E Neuropsychological problems
- 0 = severe dementia or depression
- 1 = mild dementia
- 2 = no psychological problems

F1 Body Mass Index (BMI) (weight in kg) / (height in m)^2 26.8
- 0 = BMI less than 19
- 1 = BMI 19 to less than 21
- 2 = BMI 21 to less than 23
- 3 = BMI 23 or greater

* IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2.
DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.

F2 Calf circumference (CC) in cm
- 0 = CC less than 31
- 3 = CC 31 or greater

Screening score
(max. 14 points)

12-14 points:	Normal nutritional status
8-11 points:	At risk of malnutrition
0-7 points:	Malnourished

Auto-Sum of Total Score and Category of Malnutrition

Mini Nutritional Assessment

MNA®

Nestlé NutritionInsti

Last name: Test First name: Pss

Sex: F Age: 64 Weight, kg: 81.2 Height, cm: 174 Date: Sep 20,

Complete the screen by filling in the boxes with the appropriate numbers. Total the numbers for the final screen

Screening

A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewi swallowing difficulties?
- 0 = severe decrease in food intake
- 1 = moderate decrease in food intake
- [x] 2 = no decrease in food intake

B Weight loss during the last 3 months
- 0 = weight loss greater than 3 kg (6.6 lbs)
- 1 = does not know
- [x] 2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
- 3 = no weight loss

C Mobility
- 0 = bed or chair bound
- [x] 1 = able to get out of bed / chair but does not go out
- 2 = goes out

D Has suffered psychological stress or acute disease in the past 3 months?
- 0 = yes
- [x] 2 = no

2

E Neuropsychological problems
- 0 = severe dementia or depression
- [x] 1 = mild dementia
- 2 = no psychological problems

1

F1 Body Mass Index (BMI) (weight in kg) / (height in m)^2 26.8
- 0 = BMI less than 19
- 1 = BMI 19 to less than 21
- [x] 2 = BMI 21 to less than 23
- 3 = BMI 23 or greater

2

* IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2.
DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.

F2 Calf circumference (CC) in cm
- 0 = CC less than 31
- 3 = CC 31 or greater

Screening score 10
(max. 14 points)

12-14 points:	○	Normal nutritional status
8-11 points:	◉	At risk of malnutrition
0-7 points:	○	Malnourished

Capturing Screening Score and Refer for Assessment

Sep 20, 2018 Malnutrition Screening (v.7 - Dec 2016) DHT

Clinical Interaction Demographics

Clinician: Denis Tsang

Patient's Age: 64

Patient's Gender: F

Reason for Screening

- [ ] Recent Hospitalization

Date of Discharge: mmm d, yyyy

- [ ] Memory Clinic
- [ ] Identified by EMR Query

Specify:

- [ ] Other

Specify:

- [ ] Referral from MD/IHP

Screening Tools

- [ ] CNST (Post-Discharge)
- [x] MNA-SF (Memory Clinic)
- [ ] SCREEN II

MNA-SF

Insert MNA - SF Form

Score: 10

Score < 12 (At Risk of Malnutrition - Refer to RD)

- [x] Refer to RD

Clinical Note

- [ ] Refusal for RD Referral

Personal Message

- [ ] Send Yourself a Message as a Reminder

Finish

Sep 20, 2018 Malnutrition Screening (v.7 - Dec 2016) DHT

Clinical Interaction Demographics

Clinician: Denis Tsang

Patient's Age: 64

Patient's Gende F

Reason for Screening

- [ ] Recent Hospitalization

Date of Discharge: mmm d, yyyy

- [ ] Memory Clinic
- [ ] Identified by EMR Query

Specify:

- [ ] Other

Specify:

- [ ] Referral from MD/IHP

Screening Tools

- [ ] CNST (Post-Discharge)
- [ ] MNA-SF (Memory Clinic)
- [x] SCREEN II

SCREEN II

Insert SCREEN II - AB Questionnaire

Score:

Score < 38 (At Nutrition Risk - Refer to RD)

- [ ] Refer to RD

Clinical Note

- [ ] Refusal for RD Referral

Personal Message

- [ ] Send Yourself a Message as a Reminder

Finish

SCREEN™

SCREENIIAB
Score:

Rate your eating habits.

Name: Pss Test Date: Sep 20, 2018

- For each question, check **only one** box that describes you **best.**
- Your response should reflect your **typical eating habits.**
- Feel free to write **comments** beside any question.

1. Has your weight changed in the past 6 months?

- [8] No, my weight stayed within a few pounds.
- [0] I don't know how much I weigh or if my weight has changed.

Yes, *I gained ...*

- [0] more than 10 pounds
- [2] 6 to 10 pounds
- [4] about 5 pounds

Yes, *I lost ...*

- [0] more than 10 pounds
- [2] 6 to 10 pounds
- [4] about 5 pounds

Comments?

2. Do you skip meals?

- [8] Never or rarely
- [4] Sometimes
- [2] Often
- [0] Almost every day

3. How would you describe your appetite?

- [8] Very good
- [6] Good
- [4] Fair
- [0] Poor

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4. Do you cough, choke or have pain when swallowing food OR fluids?

- [8] Never
- [6] Rarely
- [2] Sometimes
- [0] Often or always

5. How many pieces or servings of fruit and vegetables do you eat in a day?
Fruit and vegetables can be canned, fresh, frozen, or juice.

- [4] Five or more
- [3] Four
- [2] Three
- [1] Two
- [0] Less than two

6. How much fluid do you drink in a day?
Examples are water, tea, coffee, herbal drinks, juice, and soft drinks, but not alcohol.

- [4] Eight or more cups
- [3] Five to seven cups
- [2] Three to four cups
- [1] About two cups
- [0] Less than two cups

7. Do you eat one or more meals a day with someone?

- [0] Never or rarely
- [2] Sometimes
- [3] Often
- [4] Almost always

8. Which statement best describes meal preparation for you?

- [4] I enjoy cooking most of my meals.
- [2] I *sometimes* find cooking a chore.
- [0] I *usually* find cooking a chore.
- [4] I'm *satisfied* with the quality of food prepared by others.
- [0] I'm *not satisfied* with the quality of food prepared by others.

Thank you for telling us about your eating habits.

SCREENIIAB
Score:

Rate your eating habits.

Name: Pss Test Date: Sep 20, 2018

- For each question, check **only one** box that describes you **best.**
- Your response should reflect your **typical eating habits.**
- Feel free to write **comments** beside any question.

1. Has your weight changed in the past 6 months?

8 ☐ No, my weight stayed within a few pounds.
0 ☐ I don't know how much I weigh or if my weight has changed.

Yes, *I gained ...*

0 ☐ more than 10 pounds
2 ☐ 6 to 10 pounds
4 ☐ about 5 pounds

Yes, *I lost ...*

0 ☐ more than 10 pounds
2 ☐ 6 to 10 pounds
4 ☐ about 5 pounds

Comments?

2. Do you skip meals?

8 ☐ Never or rarely
4 ☐ Sometimes
2 ☐ Often
0 ☐ Almost every day

3. How would you describe your appetite?

8 ☐ Very good
6 ☐ Good
4 ☐ Fair
0 ☐ Poor

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SCREENIIAB
Score: 16

Rate your eating habits.

Name: Pss Test Date: Sep 20, 2018

OntarioMD
Empowered Practices. Enhanced Care.

Capturing Screening Score

Sep 20, 2018 Malnutrition Screening (v.7 - Dec 2016) DHT

Clinical Interaction Demographics

Clinician: Denis Tsang

Patient's Age: 64

Patient's Gender: F

Reason for Screening

- ☐ Recent Hospitalization
  - Date of Discharge: mmm d, yyyy
- ☐ Memory Clinic
- ☐ Identified by EMR Query
  - Specify:
- ☐ Other
  - Specify:
- ☐ Referral from MD/IHP

Screening Tools

- ☐ CNST (Post-Discharge)
- ☐ MNA-SF (Memory Clinic)
- ☑ SCREEN II

SCREEN II

Insert SCREEN II - AB Questionnaire

Score: 20

Score < 38 (At Nutrition Risk - Refer to RD)

☐ Refer to RD

Clinical Note

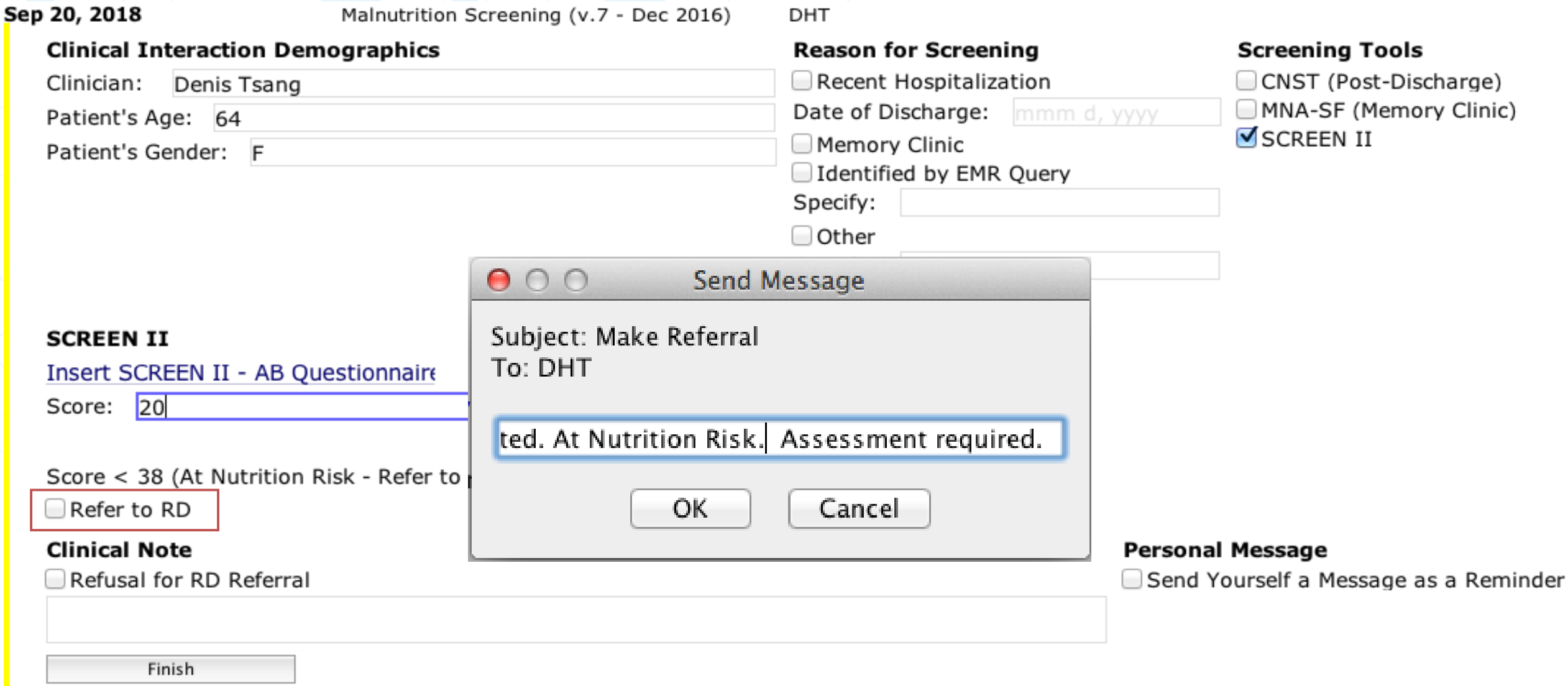
☐ Refusal for RD Referral

Personal Message

☐ Send Yourself a Message as a Reminder

Finish

Refer to a Dietitian for Assessment with a Message



2. Malnutrition Assessment

Malnutrition Assessment

Sep 21, 2018 Malnutrition Assessment (v.8 - May 2017) DHT

Clinical Interaction Demographics

Appointment Date: Sep 21, 2018

Registered Dietitian: Denis Tsang

☐ Assessment (Complete SGA Form)

Visit #:

Insert SGA Form

Patient's Age: 64

Patient's Gender: F

Screening (If NOT Completed)

☐ CNST Screening NOT Completed (Post-Discharge)

☐ CNST Re-Screening

☐ MNA-SF NOT Completed (Memory Clinic)

☐ SCREEN II Screening NOT Completed

Reason for Screening

☐ Recent Hospitalization

Date of Discharge: mmm d, yyyy

☐ Memory Clinic

☐ Identified by EMR Query

Specify:

☐ Other

Specify:

☐ Referral from MD/IHP

Internal Referral

☐ GP
☐ Medical Specialist
☐ NP
☐ RN
☐ RPN
☐ RPh
☐ RSW
☐ PT
☐ OT
☐ SLP
☐ System Navigator

External Referral

☐ CCAC/LHIN
☐ Health Link
☐ Hospital-Based Program
☐ Community-Based Program

Personal Message

☐ Send Yourself a Message as a Reminder

Finish

Sep 21, 2018 Malnutrition Assessment (v.8 - May 2017) DHT

Clinical Interaction Demographics

Appointment Date: Sep 21, 2018

Registered Dietitian: Denis Tsang

☑ Assessment (Complete SGA Form)

Visit #:

Insert SGA Form

Patient's Age: 64

Patient's Gender: F

Screening (If NOT Completed)

☐ CNST Screening NOT Completed (Post-Discharge)

☐ CNST Re-Screening

☐ MNA-SF NOT Completed (Memory Clinic)

☐ SCREEN II Screening NOT Completed

Reason for Screening

☐ Recent Hospitalization

Date of Discharge: mmm d, yyyy

☐ Memory Clinic

☐ Identified by EMR Query

Specify:

☐ Other

Specify:

Wait Time (to be completed for initial assessment ONLY)

# of Calendar Days between Referral Date and 1st RD Appointment Date

☐ Same Day
☐ Next Day
☐ 2-7 Days
☐ 8-14 Days
☐ 15-21 Days
☐ >21 Days

Hand Grip Strength (in kilogram)

At Initial Assessment (Pre)

Left:

Right:

☐ N/A

At Follow-Up Assessment (Post)

Left:

Right:

☐ N/A

Gender: F

Mediterranean Diet Assessment

At Initial Assessment (Pre)

Score:

At Follow-Up Assessment (Post)

Score:

Insert Mediterranean Diet Score Questionnaire

Weight Status/Change

Baseline Weight:

Date of Baseline Weight: mmm d, yyyy

Today's Weight: wt:

View Trend of Weight Change

Weight Status Monitoring

Sep 21, 2018 Malnutrition Assessment (v.8 - May 2017) DHT

Clinical Interaction Demographics

Appointment Date: Sep 21, 2018
Registered Dietitian: Denis Tsang
☑ Assessment (Complete SGA Form)
Visit #:
Insert SGA Form

Patient's Age: 64
Patient's Gender: F

Screening (If NOT Completed)

☐ CNST Screening NOT Completed (Post-Discharge)
☐ CNST Re-Screening

☐ MNA-SF NOT Completed (Memory Clinic)

☐ SCREEN II Screening NOT Completed

Reason for Screening
☐ Recent Hospitalization
Date of Discharge: mmm d, yyyy
☐ Memory Clinic
☐ Identified by EMR Query
Specify:
☐ Other
Specify:
☐ Referral from MD/IHP

Wait Time (to be completed for initial assessment ONLY)

# of Calendar Days between Referral Date and 1st RD Appointment Date
☐ Same Day
☐ Next Day
☐ 2-7 Days
☐ 8-14 Days
☐ 15-21 Days
☐ >21 Days

Hand Grip Strength (in kilogram)

At Initial Assessment (Pre)
Left:
Right:
☐ N/A

At Follow-Up Assessment (Post)
Left:
Right:
☐ N/A

Gender: F

Mediterranean Diet Assessment

At Initial Assessment (Pre)
Score:

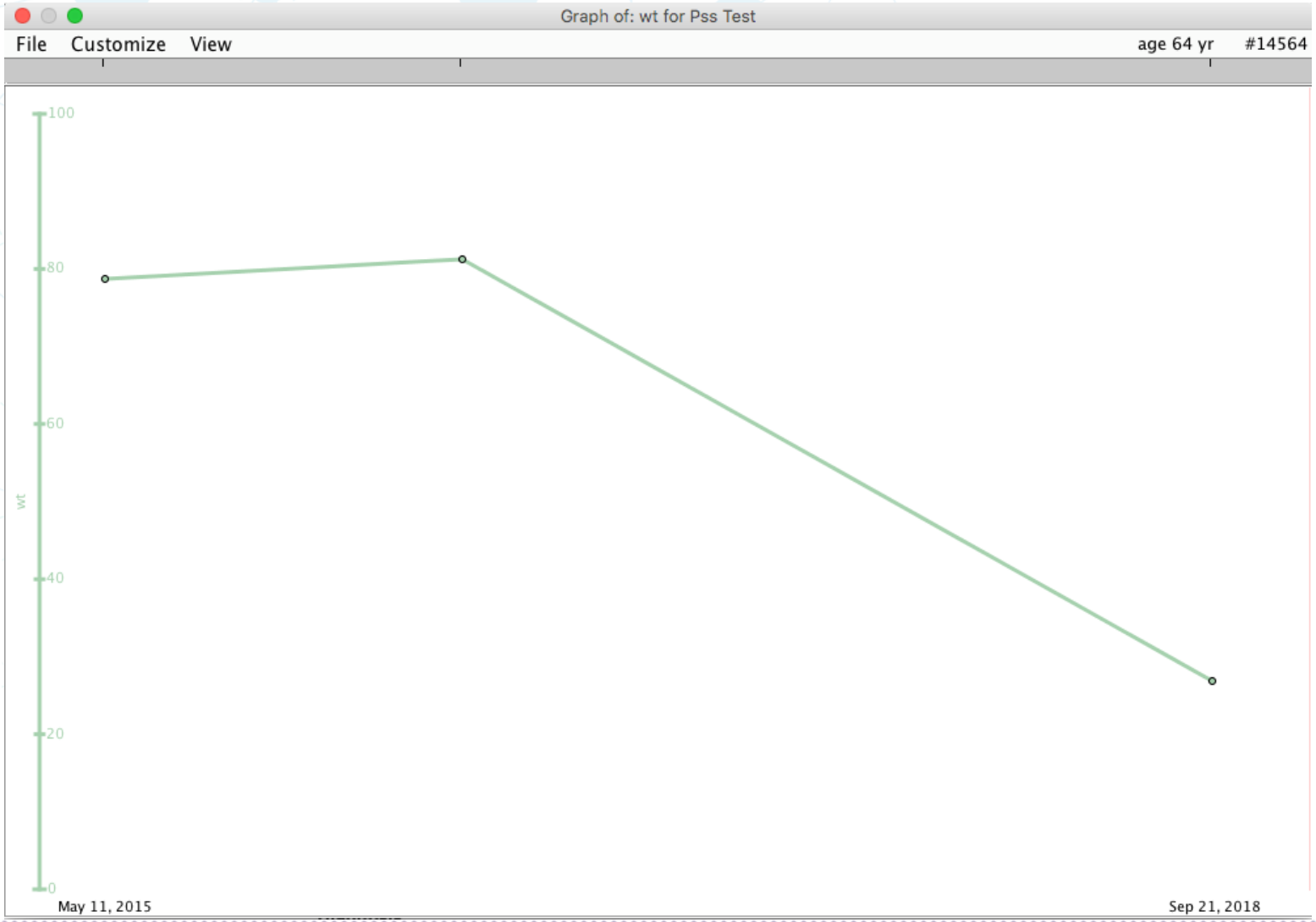
At Follow-Up Assessment (Post)
Score:

Insert Mediterranean Diet Score Questionnaire

Weight Status/Change

Baseline Weight:
Date of Baseline Weight: mmm d, yyyy
Today's Weight: wt:
View Trend of Weight Change

Graphing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wt
May 11, 2015
Sep 21, 2018

Dietary Pattern Assessment

Sep 21, 2018 Malnutrition Assessment (v.8 - May 2017) DHT

Clinical Interaction Demographics

Appointment Date: Sep 21, 2018
Registered Dietitian: Denis Tsang
☑ Assessment (Complete SGA Form)
Visit #:
Insert SGA Form

Patient's Age: 64
Patient's Gender: F

Screening (If NOT Completed)

☐ CNST Screening NOT Completed (Post-Discharge)
☐ CNST Re-Screening

☐ MNA-SF NOT Completed (Memory Clinic)

☐ SCREEN II Screening NOT Completed

Reason for Screening
☐ Recent Hospitalization
Date of Discharge: mmm d, yyyy
☐ Memory Clinic
☐ Identified by EMR Query
Specify:
☐ Other
Specify:
☐ Referral from MD/IHP

Wait Time (to be completed for initial assessment ONLY)

# of Calendar Days between Referral Date and 1st RD Appointment Date
☐ Same Day
☐ Next Day
☐ 2-7 Days
☐ 8-14 Days
☐ 15-21 Days
☐ >21 Days

Hand Grip Strength (in kilogram)

At Initial Assessment (Pre)
Left:
Right:
☐ N/A

At Follow-Up Assessment (Post)
Left:
Right:
☐ N/A

Gender: F

Mediterranean Diet Assessment

At Initial Assessment (Pre)
Score:

At Follow-Up Assessment (Post)
Score:

Insert Mediterranean Diet Score Questionnaire

Weight Status/Change

Baseline Weight:
Date of Baseline Weight: mmm d, yyyy
Today's Weight: wt:
View Trend of Weight Change

Inserting Custom Form

Mediterranean Diet Score Tool + Adherence Screener

	Question	Yes	No	Nutrition issue to discuss in response
1.	Is olive oil the main source of fat for cooking?	☐		Choosing Healthier Fats Olive oil is high in monounsaturated fat. Using unsaturated fats instead of saturated fats in cooking and preparing food is advisable.
2.	Do you have 4 tablespoons (60 ml) or more of olive oil each day?	☐		Healthy fats are better than very low fat Med diet is more beneficial than a very low fat diet in prevention of CVD. So replacing saturated with unsaturated fat is better than replacing it with carbohydrates or protein.
3.	Do you eat 4 servings of vegetables each day? (1 serving is ½ c raw or cooked or 1 c of raw salad greens)	☐		Eat plenty of fruits and vegetables Eating a wide variety of fruits and vegetables every day helps ensure adequate intake of many vitamins, minerals, phytochemicals and fibre. Studies have shown that eating plenty of these foods is protective for CVD and cancer.
4.	Do you have 3 whole fruits or 1.5 c fruit each day?	☐		
5.	Do you eat less than 1 serving of red meat, hamburger, sausage or processed meats daily?	☐		Choose lean meats and consider cooking methods Red and processed meats are high in saturated fat, can be high in salt and are best replaced with white meat or fish or vegetarian sources of protein. Grill or roast without fat, casserole or stir fry.
6.	Do you eat 1 tablespoon (15 ml) or less of butter, margarine or cream each day?	☐		Keep saturated fat low These foods are high in saturated fat which can increase your blood cholesterol level. Choose plant-based or reduced-fat alternatives.
7.	Do you have < 1 can (355 ml or 12 oz) of sugar sweetened beverages each day?	☐		Excessive consumption of sugar-sweetened beverages can worsen many risk factors for CVD: Keep consumption to <1/day.
8.	Do you drink 3 glasses or more of wine per week? (1 serving is 150 ml or 5 oz)	☐		Moderate alcohol intake with meals While this does have some protective effect but ***there is no evidence that non-drinkers should take up drinking alcohol.***
9.	Do you have 3 servings of legumes (peas, beans, or lentils per week? (1 serving is ½-2/3 c)	☐		Include soluble fibre These foods are high in soluble fibre and other useful nutrients. Regular consumption is advisable for raised cholesterol.
10.	Do you have 3 servings of fish or seafood each week? Fish serving is 3.5-5 oz or 100-150 g, seafood serving 4-5 pieces	☐		Eat more oily and white fish Oily fish is an excellent source of essential omega-3 fats. White fish is very low in saturated fat.
11.	Do you eat baked goods such as cookies, doughnuts or cake < 2 times per week?	☐		Eat less processed food These foods are usually high in saturated fat, salt or sugar and often contain trans fat. Replacing these with healthy snacks such as fruit or unsalted nuts is beneficial.
12.	Do you eat nuts 3 or more times per week? 1 serving is 30 g or 1 oz	☐		Snack on modest servings of unsalted nuts Nuts are rich in unsaturated fat, phytosterols, fibre, vitamin E and iron, e.g. walnuts, almonds, hazelnuts.
13.	Do you eat chicken or turkey more often than beef, pork, hamburger or sausage?	☐		'White meat' choices are lower in saturated fat. Remove the skin and consider your cooking method.
14.	Do you saute olive oil, garlic, onion, tomato and serve on pasta, rice or vegetables 2 or more times per week?	☐		Using a tomato and garlic or onion or leek-based sauce regularly is a key feature of the Med diet.
TOTAL SCORE (total no. of 'yes' answer)		☐		

Adapted from: Alison Hornby and Katherine Paterson and www.Predimed.es, Int J Epidemiol 2012 Apr:41(2):377-385, J Nutr Jun:41(6):1140-5.

Auto-Sum of Total Score

Mediterranean Diet Score Tool + Adherence Screener

	Question	Yes	No	Nutrition issue to discuss in response
1.	Is olive oil the main source of fat for cooking?	☑		Choosing Healthier Fats Olive oil is high in monounsaturated fat. Using unsaturated fats instead of saturated fats in cooking and preparing food is advisable.
2.	Do you have 4 tablespoons (60 ml) or more of olive oil each day?	☑		Healthy fats are better than very low fat Med diet is more beneficial than a very low fat diet in prevention of CVD. So replacing saturated with unsaturated fat is better than replacing it with carbohydrates or protein.
3.	Do you eat 4 servings of vegetables each day? (1 serving is ½ c raw or cooked or 1 c of raw salad greens)	☑		Eat plenty of fruits and vegetables Eating a wide variety of fruits and vegetables every day helps ensure adequate intake of many vitamins, minerals, phytochemicals and fibre. Studies have shown that eating plenty of these foods is protective for CVD and cancer.
4.	Do you have 3 whole fruits or 1.5 c fruit each day?	☐		
5.	Do you eat less than 1 serving of red meat, hamburger, sausage or processed meats daily?	☑		Choose lean meats and consider cooking methods Red and processed meats are high in saturated fat, can be high in salt and are best replaced with white meat or fish or vegetarian sources of protein. Grill or roast without fat, casserole or stir fry.
6.	Do you eat 1 tablespoon (15 ml) or less of butter, margarine or cream each day?	☑		Keep saturated fat low These foods are high in saturated fat which can increase your blood cholesterol level. Choose plant-based or reduced-fat alternatives.
7.	Do you have < 1 can (355 ml or 12 oz) of sugar sweetened beverages each day?	☑		Excessive consumption of sugar-sweetened beverages can worsen many risk factors for CVD: Keep consumption to <1/day.
8.	Do you drink 3 glasses or more of wine per week? (1 serving is 150 ml or 5 oz)	☐		Moderate alcohol intake with meals While this does have some protective effect but ***there is no evidence that non-drinkers should take up drinking alcohol.***
9.	Do you have 3 servings of legumes (peas, beans, or lentils per week? (1 serving is ½-2/3 c)	☐		Include soluble fibre These foods are high in soluble fibre and other useful nutrients. Regular consumption is advisable for raised cholesterol.
10.	Do you have 3 servings of fish or seafood each week? Fish serving is 3.5-5 oz or 100-150 g, seafood serving 4-5 pieces	☐		Eat more oily and white fish Oily fish is an excellent source of essential omega-3 fats. White fish is very low in saturated fat.
11.	Do you eat baked goods such as cookies, doughnuts or cake < 2 times per week?	☑		Eat less processed food These foods are usually high in saturated fat, salt or sugar and often contain trans fat. Replacing these with healthy snacks such as fruit or unsalted nuts is beneficial.
12.	Do you eat nuts 3 or more times per week? 1 serving is 30 g or 1 oz	☐		Snack on modest servings of unsalted nuts Nuts are rich in unsaturated fat, phytosterols, fibre, vitamin E and iron, e.g. walnuts, almonds, hazelnuts.
13.	Do you eat chicken or turkey more often than beef, pork, hamburger or sausage?	☐		'White meat' choices are lower in saturated fat. Remove the skin and consider your cooking method.
14.	Do you saute olive oil, garlic, onion, tomato and serve on pasta, rice or vegetables 2 or more times per week?	☐		Using a tomato and garlic or onion or leek-based sauce regularly is a key feature of the Med diet.
TOTAL SCORE (total no. of 'yes' answer)		7		

Adapted from: Alison Hornby and Katherine Paterson and www.Predimed.es, Int J Epidemiol 2012 Apr:41(2):377-385, J Nutr Jun:41(6):1140-5.

Capturing Score for Pre/Post Intervention Evaluation

Sep 21, 2018 Malnutrition Assessment (v.8 - May 2017) DHT

Clinical Interaction Demographics

Appointment Date: Sep 21, 2018
Registered Dietitian: Denis Tsang
☑ Assessment (Complete SGA Form)
Visit #:
Insert SGA Form

Patient's Age: 64
Patient's Gender: F

Screening (If NOT Completed)

☐ CNST Screening NOT Completed (Post-Discharge)
☐ CNST Re-Screening
☐ MNA-SF NOT Completed (Memory Clinic)
☐ SCREEN II Screening NOT Completed

Reason for Screening
☐ Recent Hospitalization
Date of Discharge: mmm d, yyyy
☐ Memory Clinic
☐ Identified by EMR Query
Specify:
☐ Other
Specify:
☐ Referral from MD/IHP

Wait Time (to be completed for initial assessment ONLY)

# of Calendar Days between Referral Date and 1st RD Appointment Date
☐ Same Day
☐ Next Day
☐ 2-7 Days
☐ 8-14 Days
☐ 15-21 Days
☐ >21 Days

Hand Grip Strength (in kilogram)

At Initial Assessment (Pre)
Left:
Right:
☐ N/A

At Follow-Up Assessment (Post)
Left:
Right:
☐ N/A

Gender: F

Mediterranean Diet Assessment

At Initial Assessment (Pre)
Score:

At Follow-Up Assessment (Post)
Score:

Insert Mediterranean Diet Score Questionnaire

Weight Status/Change

Baseline Weight:
Date of Baseline Weight: mmm d, yyyy
Today's Weight: wt:
View Trend of Weight Change

Sep 21, 2018 Malnu

Clinical Interaction Demographics

Appointment Date: Sep 21, 2018

Registered Dietitian: Denis Tsang

☑ Assessment (Complete SGA Form)

Visit #:

Insert SGA Form

% of Weight Change (1 week):

% of Weight Change (1 month):

% of Weight Change (6 month):

Latest BMI: 26.8

Latest Ht: 174

Labs		Labs Date
Albumin:	49	Apr 17, 2016
Hemoglobin:	140	Apr 17, 2016
Hematocrit:	151	Apr 17, 2016
Ferritin:	35	Apr 17, 2016
B12:	269	Apr 17, 2016

Supplement(s):

Adverse Events

☐ ER Visit

Date of ER Visit: mmm d, yyyy

☐ Hospitalization

Date of Admission: mmm d, yyyy

Date of Discharge: mmm d, yyyy

☐ It is a re-admission within 30 days?

☐ Falls Incident (supported by objective data)

Date: mmm d, yyyy

☐ Falls Incident (self-reported)

Date: mmm d, yyyy

Diagnosis

SGA Rating (Pre)

☐ A (Well-Nourished; Normal)

☐ B (Mildly/Moderately Malnourished; Some Progressive Nutritional Loss)

☐ C (Severely Malnourished; Evidence of Wasting and Progressive Symptoms)

Diagnosis

SGA Rating (Post)

☐ A (Well-Nourished; Normal)

☐ B (Mildly/Moderately Malnourished; Some Progressive Nutritional Loss)

☐ C (Severely Malnourished; Evidence of Wasting and Progressive Symptoms)

Assessment Summary

Nutrition Diagnosis

☐ Inadequate Protein Intake

☐ Inadequate Energy Intake

☐ Inadequate Fiber Intake

☐ Inadequate Vitamin Intake

Specify:

☐ Inadequate Mineral Intake

Specify:

☐ Poor Nutrition Quality of Life

☐ Others

Specify:

Sep 21, 2018 Malnut

Clinical Interaction Demographics

Appointment Date: Sep 21, 2018

Registered Dietitian: Denis Tsang

☑ Assessment (Complete SGA Form)

Visit #:

Insert SGA Form

Subjective Global Assessment Form

MEDICAL HISTORY

Patient name: Pss Test Date: Sep / 21 / 2018

DIETARY INTAKE

1. ☐ No change; adequate
2. Inadequate; duration of inadequate intake _____
   ☐ Suboptimal solid diet ☐ Full fluids or only oral nutrition supplements ☐ Minimal intake, clear fluids or starvation
3. **Dietary Intake in past 2 weeks***
   ☐ Adequate _____ ☐ Improved but not adequate _____ ☐ No improvement or inadequate _____

WEIGHT

Usual weight _____ Current weight _____

1. **Non fluid weight change past 6 months** Weight loss (kg) _____
   ☐ <5% loss or weight stability ☐ 5-10% loss without stabilization or increase
   If above not known, has there been a subjective loss of weight during the past six months?
   ☐ None or mild ☐ Moderate ☐ Severe
2. **Weight change past 2 weeks*** Amount (if known) _____
   ☐ Increased ☐ No change ☐ Decreased

SYMPTOMS (Experiencing symptoms affecting oral intake)

1. ☐ Pain on eating ☐ Anorexia ☐ Vomiting ☐ Nausea ☐ Dysp
   ☐ Dental problems ☐ Feels full quickly ☐ Constipation
2. ☐ None ☐ Intermittent/mild/few ☐ Constant/severe/multiple
3. **Symptoms in the past 2 weeks***
   ☐ Resolution of symptoms ☐ Improving ☐ No change or worsened

FUNCTIONAL CAPACITY (Fatigue and progressive loss of function)

1. ☐ No dysfunction
2. Reduced capacity; duration of change _____
   ☐ Difficulty with ambulation/normal activities ☐ Bed/chair-ridden
3. **Functional Capacity in the past 2 weeks***
   ☐ Improved ☐ No change ☐ Decrease

METABOLIC REQUIREMENT

High metabolic requirement ☐ No ☐ Yes

PHYSICAL EXAMINATION

Loss of body fat	☐ No	☐ Mild/Moderate	☐ Severe
Loss of muscle mass	☐ No	☐ Mild/Moderate	☐ Severe
Presence of edema/ascites	☐ No	☐ Mild/Moderate	☐ Severe

SGA RATING

☐ **A** Well-nourished Normal ☐ **B** Mildly/moderately malnourished Some progressive nutritional loss ☐ **C** Severely malnourished Evidence of wasting and progressive symptoms

CONTRIBUTING FACTOR

☐ **CACHEXIA** - (fat and muscle wasting due to disease and inflammation) ☐ **SARCOPENIA** - (reduced muscle mass and strength)

*See page 2 SGA Rating for more description.

April 2017

Canadian Malnutrition Task Force* | le Groupe de travail canadien sur la malnutrition*

Identifying and Documenting Level of Malnutrition

SGA RATING

☐	**A**	Well-nourished Normal	☐	**B**	Mildly/moderately malnourished Some progressive nutritional loss

☐ **C** Severely malnourished
Evidence of wasting and progressive symptoms

Diagnosis

SGA Rating (Pre)

- ☐ A (Well-Nourished; Nor...
- ☑ B (Mildly/Moderately Malnourished; Some Progressive Nutritional Loss)
- ☐ C (Severely Malnourished; Evidence of Wasting and Progressive Symptoms)

PROB B (Mildly/Moderately Malnourished; Some Progressive Nutritional Loss)

Care Plan and System Navigation

Care Plan

Internal Referral

- [ ] GP
- [ ] Medical Specialist
- [ ] NP
- [ ] RN
- [ ] RPN
- [ ] RPh
- [ ] RSW
- [ ] PT
- [ ] OT
- [ ] SLP
- [ ] System Navigator

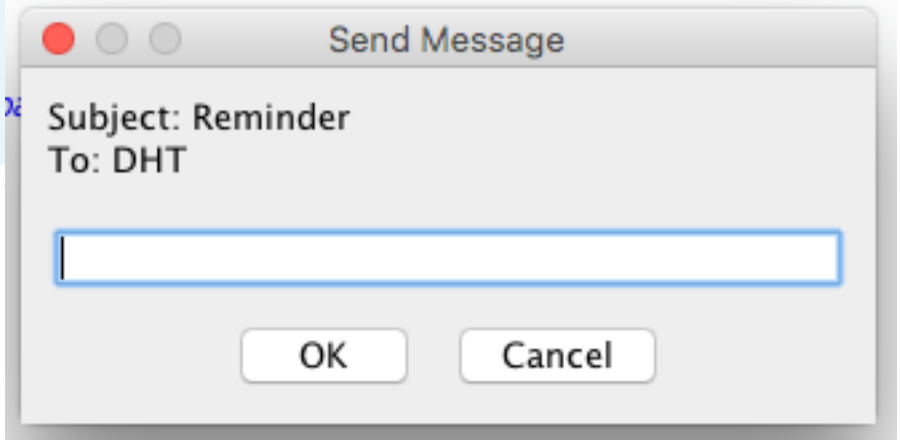
External Referral

- [ ] CCAC/LHIN
- [ ] Health Link
- [ ] Hospital-Based Program
- [ ] Community-Based Program

Personal Message

- [x] Send Yourself a Message as a Reminder

Finish



Available for Download on PS Suite Community Portal

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DenisTsangRD@gmail.com

Michele.Werstuck@hamiltonfht.ca