

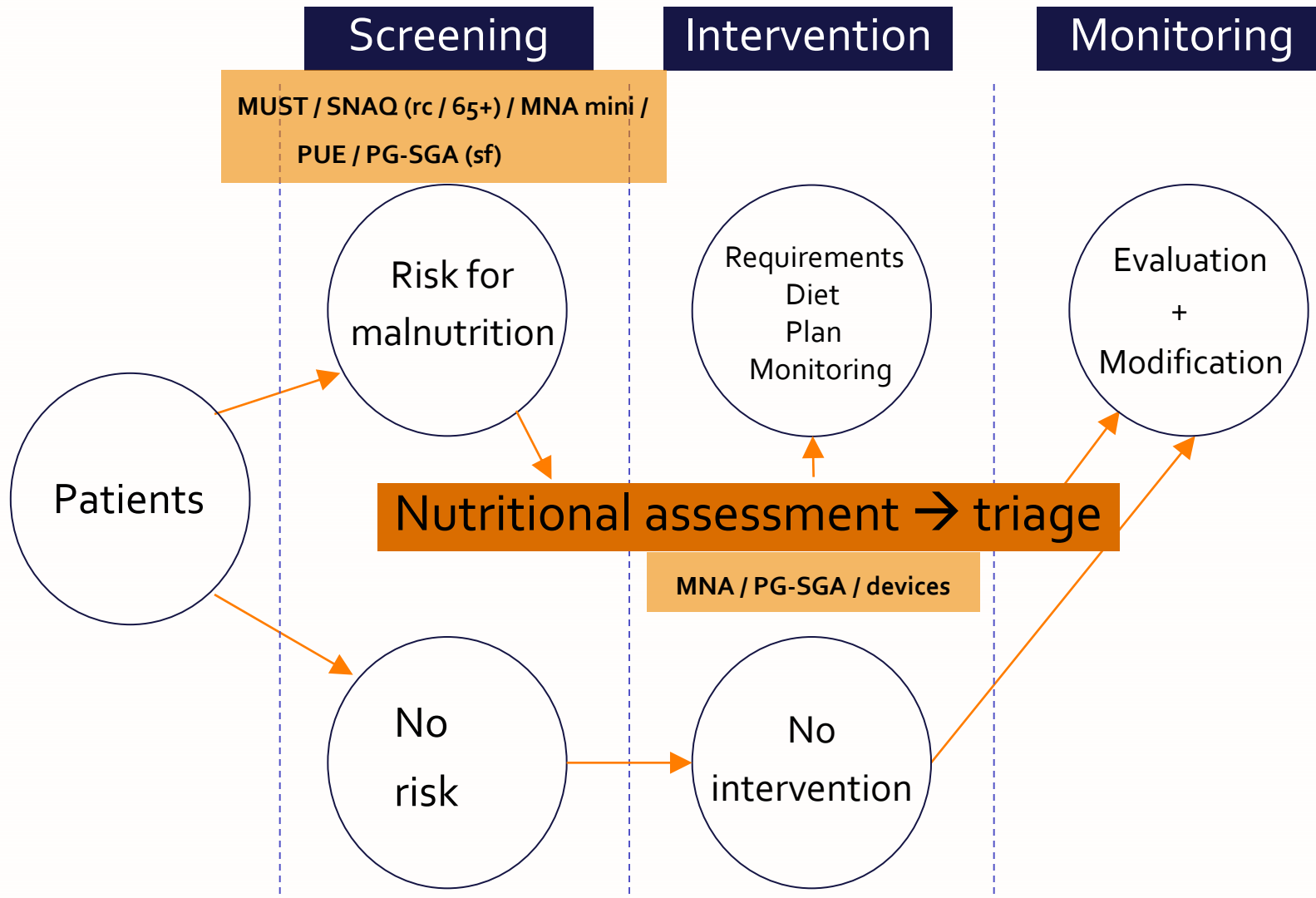


Screening, assessment and monitoring of malnutrition

Harriët Jager-Wittenaar, PhD, RD

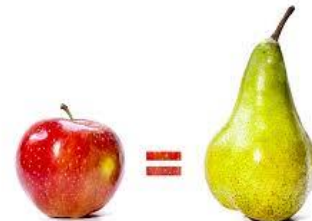
Professor of Clinical Malnutrition and Healthy Ageing

Nutrition Care Process



Current bottlenecks in practice and research

- Inadequate recognition of malnutrition by health care professionals and elderly
 - Screening not sufficiently implemented across Europe
 - Insufficient awareness / knowledge
- Screening also used for diagnosis and monitoring
- Many tools available:
 - Apples compared to pears in care pathway
 - Prevalence numbers vary depending on tool used
- Screening focuses on *undernutrition* only
 - Micronutrient deficiencies and overnutrition underrecognized
 - Food intake and needs assessment often not included in screening instruments



Current bottlenecks in practice and research

- Screening not adequately followed by actions
 - Dutch research: only $\frac{1}{4}$ malnourished hospital patients meets the predefined protein and energy requirements on 4th day of admission
- Little evidence on effectiveness of screening programs
- Assessment not routinely implemented
- Monitoring based on weight change only
- Insufficient involvement of older person him-/herself!

Task 1: Screening and assessment of malnutrition as a risk factor for (pre-)frailty

Aim:

- Early identification of malnutrition and malnutrition *risk* in older people across Europe
- Identification of optimal nutritional interventions for older people with malnutrition or malnutrition *risk*

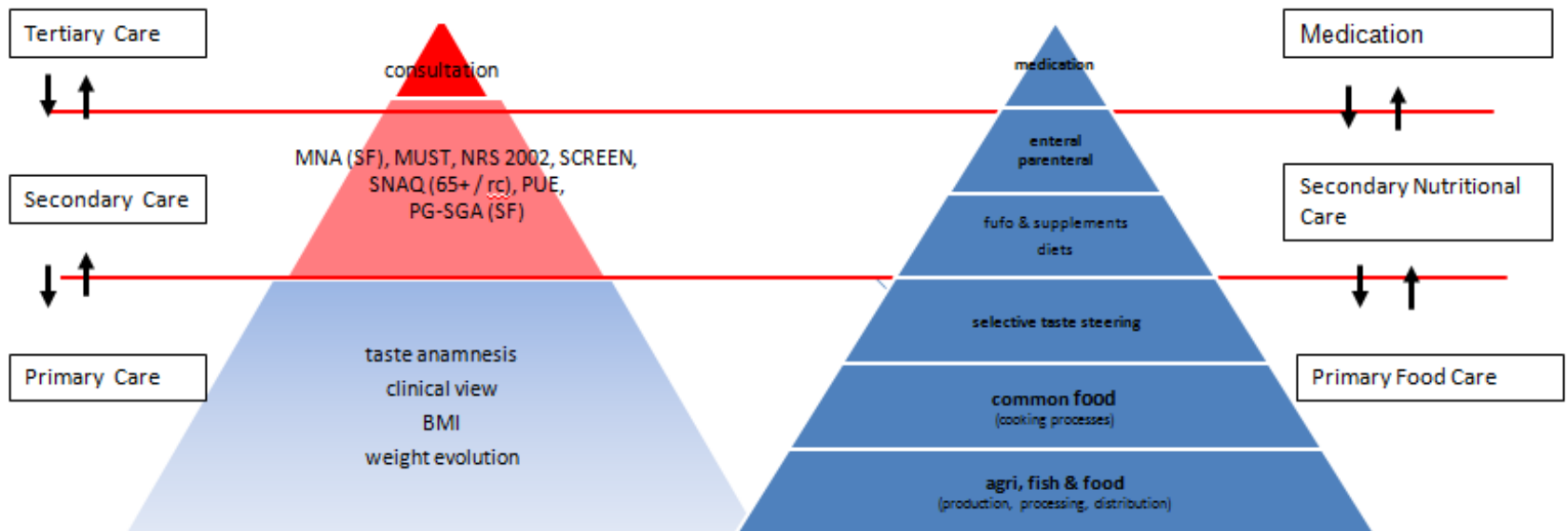
How?

- Work out, implement and evaluate the SAP-AP model

SAP-AP model

SAP: Screening, Assessment, Monitoring Pyramid

AP: Action Pyramid



How?

- Work out, implement and evaluate the SAP-AP model (1)
 - Integrate currently available screening and assessment tools into digital platform including digital applications to support screening
 - risk factors for malnutrition
 - first signs of malnutrition
 - indications for help with eating and dehydration
 - assessment and monitoring of nutritional status (incl. functioning)
 - food intake
 - physical activity/mobility level

How?

- Work out, implement and evaluate the SAP-AP model (2)
 - Define actions to screening results
 - Primary, secondary, medical
 - Multidimensional
 - Patient-centric
 - Digital
 - Proactive instead of reactive
- Evaluation
 - Including biomarkers

Contribution of Healthy Ageing Network Northern Netherlands (HANNN)



Healthy Ageing Network

Northern Netherlands
Region of Knowledge and Development



Innovation in nutritional care

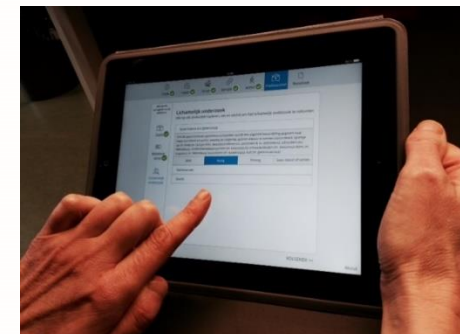
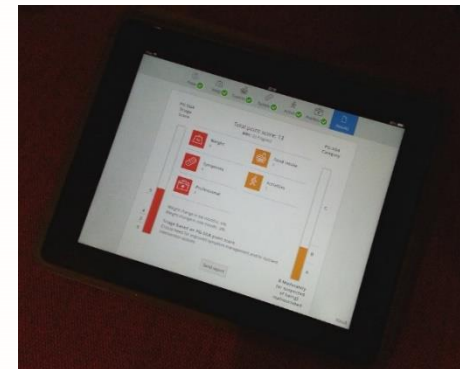
Clinical Malnutrition and Healthy Ageing

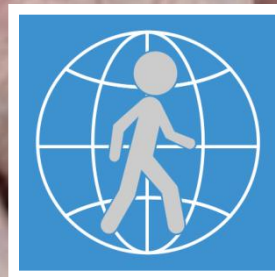
- Living Lab
- (Further) development and cross-cultural adaptation of existing tools
- Implementation and evaluation:
 - Feasibility
 - Effects on: clinical outcome, awareness in patients and professionals
 - Chain of care: community + hospitals + nursing homes
- Education:
 - Training modules for students and professionals
 - Website: www.pt-global.org



- Pt-Global app:
 - Digital screening, assessment, monitoring of malnutrition
 - Triaging for interventions
- Based on Patient-Generated Subjective Global Assessment (PG-SGA; © FD Ottery, 2001, 2006, 2014)
- Patient-centric

Scored Patient-Generated Subjective Global Assessment (PG-SGA)		Patient ID Information
History (Boxes 1-4 are designed to be completed by the patient.)		
<p>1. Weight (See Worksheet 1)</p> <p>In summary of my current and recent weight:</p> <p>I currently weigh about _____ pounds I am about _____ feet _____ tall</p> <p>One month ago I weighed about _____ pounds Six months ago I weighed about _____ pounds</p> <p>During the past two weeks my weight has:</p> <p><input type="checkbox"/> decreased ⁽¹⁾ <input type="checkbox"/> not changed ⁽²⁾ <input type="checkbox"/> increased ⁽³⁾ Box 1 <input type="checkbox"/></p>	<p>2. Food Intake: As compared to my normal intake, I would rate my food intake during the past month as:</p> <p><input type="checkbox"/> unchanged ⁽¹⁾ <input type="checkbox"/> more than usual ⁽²⁾ <input type="checkbox"/> less than usual ⁽³⁾</p> <p>I am now taking:</p> <p><input type="checkbox"/> normal food but less than normal amount ⁽¹⁾ <input type="checkbox"/> little solid food ⁽²⁾ <input type="checkbox"/> only liquids ⁽³⁾ <input type="checkbox"/> only nutritional supplements ⁽⁴⁾ <input type="checkbox"/> very little of anything ⁽⁵⁾ <input type="checkbox"/> only tube feedings or only nutrition by vein ⁽⁶⁾ Box 2 <input type="checkbox"/></p>	
<p>3. Symptoms: I have had the following problems that have kept me from eating enough during the past two weeks (check all that apply):</p> <p><input type="checkbox"/> no problems eating ⁽⁰⁾ <input type="checkbox"/> no appetite, just did not feel like eating ⁽¹⁾ <input type="checkbox"/> nausea ⁽¹⁾ <input type="checkbox"/> vomiting ⁽²⁾ <input type="checkbox"/> constipation ⁽¹⁾ <input type="checkbox"/> diarrhea ⁽²⁾ <input type="checkbox"/> mouth sores ⁽²⁾ <input type="checkbox"/> dry mouth ⁽¹⁾ <input type="checkbox"/> things taste funny or have no taste ⁽¹⁾ <input type="checkbox"/> smells bother me ⁽¹⁾ <input type="checkbox"/> problems swallowing ⁽²⁾ <input type="checkbox"/> feel full quickly ⁽¹⁾ <input type="checkbox"/> pain; where? ⁽¹⁾ <input type="checkbox"/> fatigue ⁽¹⁾ <input type="checkbox"/> other** ⁽¹⁾ _____ ⁽¹⁾</p> <p>** Examples: depression, money, or dental problems Box 3 <input type="checkbox"/></p>	<p>4. Activities and Function:</p> <p>Over the past month, I would generally rate my activity as:</p> <p><input type="checkbox"/> normal with no limitations ⁽⁰⁾ <input type="checkbox"/> not my normal self, but able to be up and about with fairly normal activities ⁽¹⁾ <input type="checkbox"/> not feeling up to most things, but in bed or chair less than half the day ⁽²⁾ <input type="checkbox"/> able to do little activity and spend most of the day in bed or chair, pretty much bedridden, rarely out of bed ⁽³⁾</p> <p style="text-align: right;">Box 4 <input type="checkbox"/></p>	
Additive Score of the Boxes 1-4 <input type="checkbox"/> A		





Pt-Global



**Hanzehogeschool
Groningen**
University of Applied Sciences




Pt-Global

 **Patient** 

 **Weight**

 **Food intake**

 **Symptoms**

 **Activities**

 **Professional**

 **Results**



Patient

Patient characteristics

kg / cm

lbs / ft

Clear

Patient 1

78

years

Gender

183

cm

Man

Woman

NEXT >>



Patient



Weight



Food intake



Symptoms



Activities



Professional



Results



Weight history

In summary of my current and recent weight:

Six months ago I weighed about:

kg

One month ago I weighed about:

kg

I currently weigh about:

kg



During the past two weeks my weight has:

Click that apply



Patient



Weight



Food intake



Symptoms



Activities



Professional



Results



As compared to my normal intake, I would rate my food intake during the past month as:

Click to select:

Unchanged

More than usual

Less than usual



I am now taking:

Click to select:

Normal food, but less than normal amount

Little solid food

Only liquids

Only nutritional supplements

Very little of anything

Only tube feedings or only nutrition by vein

<< BACK

NEXT >>



Patient



Weight



Food intake



Symptoms



Activities



Professional



Results



I had the following problems:

Please check all that apply

No problems eating

No appetite, just did not feel like eating

Nausea

Constipation

Mouth sores

Things taste funny or have no taste

Problems swallowing

Pain ...

Vomiting

Diarrhea

Dry mouth

Smells bother me

Feel full quickly

Fatigue

Other ...

* Examples: depression, money, or dental problems



Pt-Global



Patient



Weight



Food intake



Symptoms



Activity



Professional



Results



Over the past month, I would generally rate my activity as:

Click to select

Normal with no limitations

Not my normal self, but able to be up and about with fairly normal activities

Not feeling up to most things, but in bed or chair less than half the day

Able to do little activity and spend most of the day in bed or chair

Pretty much bedridden, rarely out of bed

<< BACK

NEXT >>



Patient ✓



Weight ✓



Food in ✓



Symptoms ✓



Activity ✓



Professional



Results

Click each icon to complete



Diseases ✓



Metabolic stress ✓



Physical exam

Fever

No fever	>37.2 °C and <38.3 °C	≥38.3 °C and <38.8 °C	≥38.8 °C
----------	-----------------------	-----------------------	----------

Fever duration

No fever	<72 hours	72 hours	>72 hours
----------	-----------	----------	-----------

Corticosteroids

Yes			
	Low	Medium	High
Prednisone (mg)	10	20	30
Cortisone (mg)	50	100	150
Hydrocortisone (mg)	40	80	120
Prednisolone (mg)	10	20	30
Methylprednisolon (mg)	8	16	24
Dexamethasone (mg)	1.5	3	4.5



Pt-Global



Patient



Weight



Food in



Symptoms



Activity



Professional



Results

Click each icon to complete



Diseases



Metabolic stress



Physical exam

Physical exam

Click on each button to complete

Muscle mass and tone

To assess muscle status, the following should be evaluated for decrease in muscle mass or muscle tone, with an overall muscle assessment in terms of degree of deficit or loss: Temples (temporalis muscle), Clavicles (pectoralis & deltoids), Shoulders (deltoids), Interosseus muscles, Scapula (latissimus dorsi, trapezius, deltoids), Thigh (quadriceps), Calf (gastrocnemius)

Mild	Moderate	Severe	No deficit or loss
------	----------	--------	--------------------

Fat stores

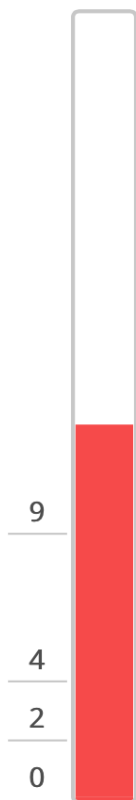
Fluid status



PG-SGA
Triage
Score

Total point score: 17
BMI: 22.4 kg/m²

PG-SGA
Category



Weight
4



Food Intake
1



Symptoms
4



Activities
1



Professional
7

Weight change in six months: -12%
Weight change in one month: -6%

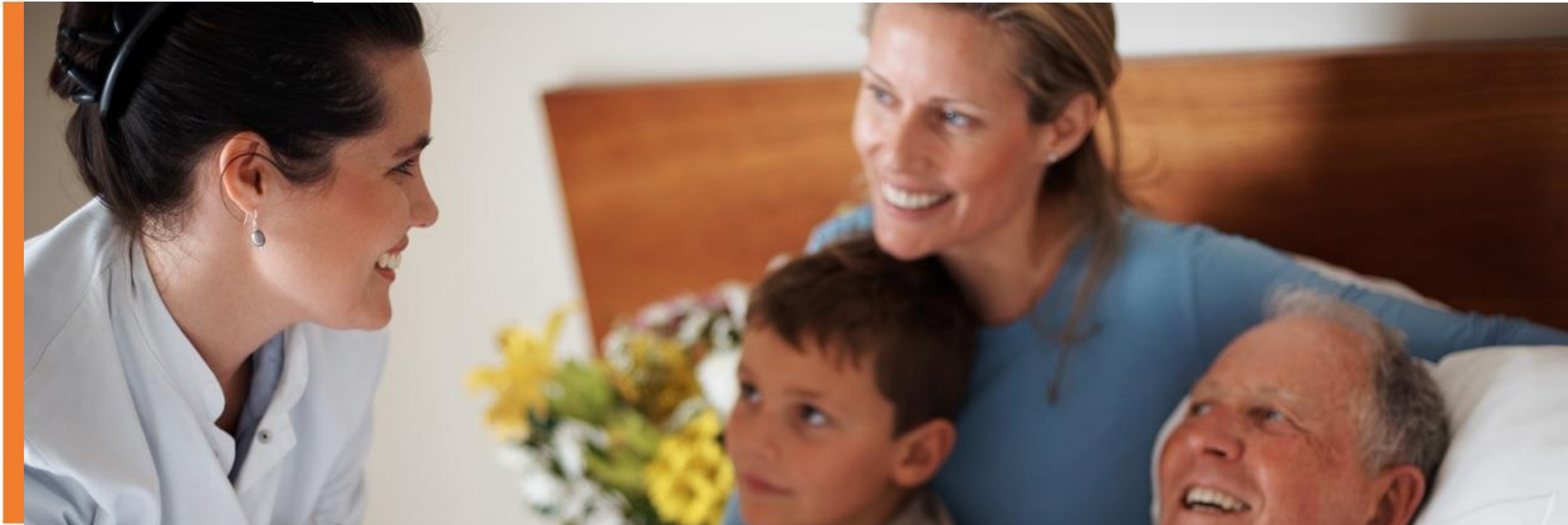
Triage based on PG-SGA point score

Critical need for improved symptom management and/or nutrient intervention options

Send report



C Severely malnourished



Thank you!



Healthy Ageing Network
Northern Netherlands
Region of Knowledge and Development



Hanze
University of Applied Sciences
Groningen

Contact:

ha.jager@pl.hanze.nl



umcg