Becoming “Food Aware” in Hospital
Strategies to improve food intake and the nutrition care culture
Malnutrition

Mortality $\uparrow$

Treatment $\uparrow$

Length of Stay $\uparrow$

COSTS $\uparrow$

Quality of Life $\downarrow$

Suffering $\uparrow$

Convalescence $\downarrow$

Complications $\uparrow$

Infections $\downarrow$

Wound healing $\downarrow$

Morbidity $\uparrow$
Hospital Malnutrition in Canada

• Almost 1 in 2 medical or surgical patients who stay 2+ days are malnourished at admission (Allard et al., 2015)

• Less than ¼ of patients see a dietitian, most of these patients are not malnourished; 75% of malnourished are missed (Keller et al., 2015)

• Malnutrition at admission extends length of stay by ~3 days

• Patients who deteriorate have a longer length of stay (medical 18 days; surgical 12 days) (Allard et al., 2016)

• 2/3 of patients leave in the same nutritional state as admitted while 1 in 5 gets worse (Allard et al., 2016)
Hospital Malnutrition in Canada

• Poor food intake ($\leq 50\%$) in the first week of hospital stay occurs for $\sim 35\%$ of patients (Allard et al., 2015)

• Poor food intake during admission predicts length of stay when adjusted for other covariates such as malnutrition at admission (Allard et al., 2015)

• 77\% of physicians agreed that using dietitian expertise more extensively would be helpful (Duerksen et al. 2016, JPEN)

• Over 50\% of nurses thought malnutrition occurred in $<25\%$ of patients (Duerksen et al. 2016, JPEN)
Barriers to Food Intake

• Organizational (noise, interruptions)
• Choice (meal timing, limited menu selection)
• Food access/hunger (lack of food availability)
• Eating difficulties (opening packages, reaching food)
• Quality/choice/satisfaction with food (taste, appearance, smell)
• Effect of illness on food intake (poor appetite, pain)
Organizational Barriers to Food Intake

- Disturbed by activities, noises or unpleasant smells (38.9%)
- Interrupted by the hospital staff (41.8%)
- Missed meals by not being available when they were served (19.9%)
- Missed meals because of avoiding food for tests (34.7%)
- When meals missed, not give hospital food by staff (Patients answered ‘did not miss a meal’ excluded) (69.2%)
- Did not get help when needed (restricted to patients who needed help) (42.2%)
- Did not want food that had been ordered* (58%)
- Did not receive ordered food* (27.6%)

*only for hospitals with selective menus

Keller et al, JHND 2015
Choice

11.9% Meals not served at times that suit patient

3.9% Do not understand how to complete the menu selection sheet*

23.3% Not being able to choose preferred foods*

36.9% Not enough information on menu to make selection*

*only for hospitals with selective menus
Hunger

30.1% Visitors bring in food because patient is hungry

24.4% Become hungry between meals that are too far apart

11.5% Felt hungry but could not ask staff for food

12.2% Felt hungry and wanted something to eat but no food was available from the hospital

Keller et al, JHND 2015
# Eating difficulties

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.2%</td>
<td>In an uncomfortable position to eat</td>
</tr>
<tr>
<td>19.7%</td>
<td>Difficulty reaching food</td>
</tr>
<tr>
<td>16.1%</td>
<td>Difficulty cutting up food</td>
</tr>
<tr>
<td>30.1%</td>
<td>Difficulty opening packets/unwrapping food</td>
</tr>
<tr>
<td>8.7%</td>
<td>Difficulty feeding self</td>
</tr>
<tr>
<td>7.4%</td>
<td>Not enough time to eat all the food</td>
</tr>
<tr>
<td>7.8%</td>
<td>Needed help to eat meals</td>
</tr>
</tbody>
</table>
Quality/satisfaction with food; dissatisfied with:

- 28.8% Taste
- 16.3% Appearance
- 18.1% Smell
- 19.4% Portion Size
- 21% Temperature of food

Keller et al, JHND 2015
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Symptom</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.9%</td>
<td>Loss of appetite</td>
</tr>
<tr>
<td>42.7%</td>
<td>Sickness</td>
</tr>
<tr>
<td>41.1%</td>
<td>Tired</td>
</tr>
<tr>
<td>37.4%</td>
<td>Pain</td>
</tr>
<tr>
<td>25.1%</td>
<td>Worried</td>
</tr>
<tr>
<td>20.0%</td>
<td>Depressed</td>
</tr>
<tr>
<td>17.1%</td>
<td>Breathing difficulties</td>
</tr>
<tr>
<td>15.2%</td>
<td>Chewing or swallowing difficulties</td>
</tr>
</tbody>
</table>

Keller et al., JHND 2015
Shared Responsibility

Being “Food Aware” in hospital is the responsibility of:

✔ All hospital staff, including senior management

✔ Volunteers

✔ Patients

✔ Families/Friends
Strategies: Correcting Knowledge Barriers

- **Education and training** for all staff including hospital management on their role in preventing malnutrition.

- **Key opinion leaders** communicate messages effectively to stimulate change in behaviour of other staff.

- **Reminders** put in place to convert training into routine practice and sustaining changes.

- Institute policies that promote **focus on patient food intake** at meal time.
Strategies: Promoting Food Intake of Patients

- Have staff (potentially a diet technician) identify food preferences, help with filling in the menu, and communicate these to food services.
- Staff and families/friends should know that mealtimes need to be focused on eating meals and nourishments.
- Staff and family/friends need to encourage food intake.
- When possible, encourage patients to eat with a group of patients or family/friends.
- Meal interruptions for tests or other medical procedures should be avoided.
Strategies: Preventing Barriers to Eating

• Sit patient in chair or **position upright** in bed

• Ensure bedside **table is cleared** for tray set-up, **open packages**, **provide assistance to eat**, if needed

• Promote a **pleasant eating environment** by considering the noise, smells and other environmental barriers to food intake

• Ensure **vision and dentition** needs are addressed

• Provide nausea, pain, constipation control

• Monitor for **signs of dysphagia**
Strategies: Food Provision

• Ensure **food is available** at all times of day, especially when a meal is missed

• Encourage family to bring preferred **foods from home** that are nourishing; provide safe storage for these foods

• Staff should be aware that oral nutrition supplements (ONS) are appropriate in some cases, but there are benefits associated with meals that ONS cannot provide

• Consider in-between meal snacks to support food intake
Strategies: Monitor and Report

“Staff/family/friends and the patient need to monitor food intake and when it is low, implement advanced strategies to support food intake, such as snacks or special supplements”

Monitor:

- Food/meal intake
- Weight weekly
- Duration of NPO/clear fluid intake
- Hydration status
- Appetite
Strategies: Transitioning Malnourished Patients to Home

• **Educate** patients and families/friends on the importance of nutrition during and post hospitalization

• Include nutrition status and treatment prescription in **discharge plans** to ensure follow-through of treatment into the community

• Provide **specific guidance** around monitoring body weight and appetite and what to do if these continue to be poor at home
Summary

• Making a hospital “food aware” requires a **multi-level approach**.

• Potential **barriers** to food intake should be recognised.

• **Strategies** to address these barriers need to be implemented.

• Hospitals require a **culture** that supports the nutritional needs of patients.

• Becoming “food aware” in hospital is the **shared responsibility** between hospital staff, management, patients and their families.
Acknowledgements

These slides were created and approved by:

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