Framework for Effective & Efficient Dietetic Services
In essence, you are free to share, copy and communicate the work for non-commercial purposes, as long as you attribute the authors and abide by the licence terms. If you adapt, remix, transform or build upon the material, you must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. You must distribute your contributions under the same licence as the original. You may not use the material for commercial purposes.

For further information contact nemo@health.qld.gov.au

Queensland Health would like to acknowledge the contributions to the FEEDS Toolkit from Allied Health Professions Office Queensland (AHPOQ) and members of the Dietitians Nutritionist Strategic Coalition (DNSC) network. The DNSC membership includes Queensland Health Nutrition & Dietetic Directors and Heads of Department, Mater Health Services Nutrition & Dietetics Department, Non-Government Organisations, Private and University Sectors.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Evidence Areas</td>
<td>4</td>
</tr>
<tr>
<td>List of Abbreviations</td>
<td>6</td>
</tr>
<tr>
<td>Document Revision History</td>
<td>3</td>
</tr>
<tr>
<td>Evidence Area: Subacute Care</td>
<td>5</td>
</tr>
<tr>
<td>Appendix One: Summary of Edits</td>
<td>12</td>
</tr>
<tr>
<td>Appendix Two: Members of the FEEDS Implementation Steering Group</td>
<td>13</td>
</tr>
</tbody>
</table>
Introduction to Evidence Areas

The following Evidence Areas have been compiled by dietitians across Health and Hospital Services (HHS) from within Queensland Health in 2015, and updated in 2017. Details of each chapter update can be found in appendix one (1). These pages represent a combination of up to date evidence and expert clinician opinion in order to inform priorities for dietitians working in clinical settings. The toolkit was endorsed by members of the FEEDS Implementation Steering Group (see appendix two(2)) in March 2017.

It is widely acknowledged that demand on Queensland dietetics services is increasing; collaboration across sectors and innovative thinking are essential in order for clinical dietetics to match increasing demand. Whilst these challenges are by no means new, the impact of a changing workforce through the recent restructuring of public health nutrition services, and the continued uncertainty around the provision of some services, has applied considerable pressure to the existent clinical dietetics workforce. Allied Health Professions Office Queensland (AHPOQ) is committed to expanding the scope of practice for allied health professionals. The Ministerial Taskforce on Expanded Scope recognises if allied health professionals, dietetics included, work to full scope and utilises allied health support staff, then this paves the way for expanding the scope of practice and adding high value services to meet Key Performance Indicators of HHS’s across the state.

Given this current climate, it is imperative that local dietetics services are able to determine clinical priorities and align these with the broader priorities of their local health services, the state and the federal governments. This toolkit cannot displace local guidelines or prioritisation procedures due to the differences that exist between services in their size and complexity. It should be utilised to inform the development and review of these documents in order to ensure that dietetics services provided across the state are evidence-based, safe, equitable and provide a high value to the HHS. It should be used as a tool to assess your local service, and/or models of care against the evidence to enable a realignment of resources from low value priority areas (disinvestment), to high value priority areas. (reinvestment). For additional evidence based recommendations, dietitians are encouraged to consult practice-based evidence in nutrition at www.pennutrition.com

This toolkit is broken up into areas that represent clinical dietitians’ core business, listed out in alphabetical order. The intent is that it contains useful information for dietitians working across the continuum of care; however, some evidence areas may have a larger focus on interventions designed for the acute care setting than others. It is recommended that FEEDS be used in conjunction with a Dietitian and/or the Dietition Nutritionist Strategic Coalition (DNSC) in determining opportunities, resource advocacy, and service delivery for the nutritional management of clinical conditions, across all areas of practice. This should not be limited to the areas included in this version of the FEEDS Toolkit.
To enable quick referencing, evidence areas have been sub-divided – where relevant – with use of blue rows to communicate evidence that relates to a particular condition or intervention type; paediatrics is identifiable through use of a pink row. Within each evidence area, common interventions requiring the attention of a dietitian have been prioritised in accordance with a three tranche scale; where high priorities have a red banner, medium priorities have an orange banner, and low priorities have a green banner. Some interventions require an organisational approach; these are distinguished with use of a purple banner. Given the differences that are likely to exist between services and their available resources, a timeframe for response to referral has not been included.

Below is an example of how the evidence areas are set-up:

<table>
<thead>
<tr>
<th>Description of Condition or Intervention Type</th>
<th>Why – reason for dietetic intervention</th>
<th>How</th>
<th>Who</th>
<th>Where</th>
<th>Frequency for intervention</th>
<th>Comments/ Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH PRIORITY</td>
<td>The “Why” section describes the requirement for dietitian involvement. At times this may describe other activities that impact on clinical dietetics, but do not directly require a dietitian to initiate or complete the activity (e.g. malnutrition screening)</td>
<td>Describes how the intervention should be conducted</td>
<td>Nominates individuals responsible for completing interventions</td>
<td>Describes the setting in which interventions can safely occur</td>
<td>Determines how often the intervention should be conducted</td>
<td>References that should consulted for further information or support in delivering intervention.</td>
</tr>
<tr>
<td>MEDIUM PRIORITY</td>
<td>E.g. Individual patient consults</td>
<td>E.g. Dietitian</td>
<td>E.g. Throughout continuum of care e.g. home, hospital, subacute</td>
<td>E.g. As clinically indicated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOW PRIORITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGH PRIORITY AT AN ORGANISATIONAL LEVEL</td>
<td>Paediatrics</td>
<td>The paediatric elements within each chapter have not been categorised in priority level. Instead, please refer to the prioritisation guideline (appendix three(3))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
List of Abbreviations

AHA
Allied Health Assistant

APD
Accredited Practising Dietitian

BGL
Blood Glucose Level

BMI
Body Mass Index

BMR
Basal Metabolic Rate

CDE
Credentialed Diabetes Educator

CHO
Carbohydrate

CKD
Chronic Kidney Disease

CVD
Cardiovascular Disease

EN / EEN
Enteral Nutrition / Exclusive Enteral Nutrition

HPHE
High Protein, High Energy (Diet)

IDNT
International Dietetics & Nutrition Terminology

MDT
Multidisciplinary Team

MJ / kJ
Mega-Joule / kilo-Joule

MNT
Medical Nutrition Therapy

MST
Malnutrition Screening Tool

NGT
Nasogastric Tube

NRV
Nutrient Reference Values

PERT
Pancreatic Enzyme Replacement Therapy

PG-SGA
Patient-Generated Subjective Global Assessment

PICU
Paediatric Intensive Care Unit

PN / TPN
Parenteral Nutrition / Total Parenteral Nutrition

Pt
Patient

QOL
Quality of Life

SGA
Subjective Global Assessment

T1DM
Type 1 Diabetes Mellitus

T2DM
Type 2 Diabetes Mellitus
Document Revision History

<table>
<thead>
<tr>
<th>Version No.</th>
<th>Created/Modified by</th>
<th>Date</th>
<th>Content/Amendments details</th>
<th>Approved by</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEEDS Toolkit</td>
<td></td>
<td>05/07/2016</td>
<td>Reformatted the FEEDS Toolkit into separate evidence areas using Queensland Health approved font in preparation for publishing to NEMO</td>
<td>FEEDS Implementation Steering Group</td>
</tr>
<tr>
<td>2.0</td>
<td>Rhiannon Barnes</td>
<td>21/06/2017</td>
<td>Rebranding of the FEEDS Toolkit to the ‘purple’ watercolour template</td>
<td>FEEDS Implementation Steering Group</td>
</tr>
<tr>
<td>2.0</td>
<td>Rhiannon Barnes</td>
<td>07/06/2017</td>
<td>Development and inclusion of Creative Commons section on page 2 of the FEEDS Toolkit</td>
<td>FEEDS Implementation Steering Group</td>
</tr>
<tr>
<td>2.0</td>
<td>Rhiannon Barnes</td>
<td>15/03/2017</td>
<td>Changed evidence area title from Cardiology to Cardiovascular Disease to align with Nutrition Education Materials Online terminology</td>
<td>Jan Hill</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Changed evidence area title from Oncology to Cancer Services to align with Nutrition Education Materials Online terminology</td>
<td>Teresa Brown</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Updated chapter areas based on feedback from FEEDS Implementation Steering Group Members</td>
<td>FEEDS Implementation Steering Group</td>
</tr>
</tbody>
</table>
| 2.0         | Rhiannon Barnes     | 21/02/2017 | Updates to contributors across all FEEDS chapter areas
Updates to content across most evidence areas
Update to ‘Introduction Evidence Areas’                                                                                                                    | FEEDS Implementation Steering Group |
<p>| 2.0         | Rhiannon Barnes     | 22/02/2017 | Added new FEEDS Sub-Acute Evidence Area developed by Jillian Ross, Zoe Walsh and the Metro North Dietetic CISS team                                                                                                   | FEEDS Implementation Steering Group |
| 2.0         | Rhiannon Barnes     | 22/02/2017 | Updates to the ‘Introduction Evidence Areas’ to include a statement on directing dietitians to PEN for additional evidence areas                                                                               | FEEDS Implementation Steering Group |
| Diabetes    | Lindsey Johnson     | 06/05/2015 | Updates to contributors and modifications to include accepted terminologies                                                                                                                                          | Jacqueline Cotungo                 |
| Malnutrition | Lindsey Johnson     | 03/03/2015 | <em>Malnutrition in the Frail Elderly</em> revised and changed to <em>Malnutrition</em> with some associated content changes                                                                                                       | Jan Hill                           |
| Oncology    | Lindsey Johnson     | 03/03/2015 | <em>Malnutrition in the Frail Elderly</em> revised and changed to <em>Malnutrition</em> with some associated content changes                                                                                                       | Jan Hill                           |</p>
<table>
<thead>
<tr>
<th>Version</th>
<th>Author</th>
<th>Date</th>
<th>Description</th>
<th>Reviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>Lindsey Johnson</td>
<td>04/03/2015</td>
<td>Amendment to listed references</td>
<td>Melina de Corte</td>
</tr>
<tr>
<td>Renal</td>
<td>Lindsey Johnson</td>
<td>06/03/2015</td>
<td>Formatting updated and minor content changes to <em>Renal</em></td>
<td>Kylie Boyce &amp; Simone McCoy</td>
</tr>
<tr>
<td>Respiratory Disease</td>
<td>Lindsey Johnson</td>
<td>04/03/2015</td>
<td>Phrasing within <em>Respiratory Disease</em> changed in order to improve accuracy</td>
<td>Jenna Stonestreet</td>
</tr>
</tbody>
</table>

# the details on content changes/additions between FEEDS Toolkit version 1.2 and version 2.0 can be found in appendix 1 with names of the evidence area review team members
Evidence Area: Subacute Care

V2.0 Contributors: Jillian Ross, Zoe Walsh, Camey Demmitt, Sue Rogers, Cindy Jennings, Claire Archer, Damien McDermid, Juliette Mahero, Sue Murray, Sherri Smyth

The role of the Dietitian within the subacute setting will vary depending on the size and type of service the unit provides. Subacute care encompasses rehabilitation, residential transition care and geriatric evaluation and monitoring (GEMs). Palliative care and psychogeriatrics are also included under the banner of subacute however this guideline is not intended for use in these units. Subacute units may stand alone or be attached to a larger acute care facility. Generally patients will be admitted to subacute care to promote independence and regain functional capacity following an acute hospital admission.

Nutrition management in subacute care differs from acute care settings due to the extended length of stay and focus on the patient’s functional status rather than principal diagnosis. Malnutrition is a significant problem in this population and requires early intervention to allow the patient to progress towards rehabilitation goals. Conversely lifestyle related diseases such as obesity and diabetes, if impacting on function, may also need to be addressed with nutrition intervention and education. The Dietitian should work together with the multidisciplinary team to improve nutrition in order to assist the patient meet rehabilitation or functional goals. The dietitian’s role also encompasses handover and referral to community dietetic services for ongoing nutritional care post discharge for the subacute facility.

Case conferences, goal setting meetings (if conducted in the unit) and handover should be attended where possible to facilitate communication between nursing, allied health and medical staff on nutrition related issues. Other Dietitian roles will be as per other speciality areas, including education and research.

<table>
<thead>
<tr>
<th>Why – reason for dietetic intervention</th>
<th>How</th>
<th>Who</th>
<th>Where</th>
<th>Frequency for intervention</th>
<th>Comments/ Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of Condition or Intervention Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGH PRIORITY Priority patients for dietetic referral include:</td>
<td>Nutrition risk screening should be incorporated into standard processes e.g. admission forms and intake tools (eg. Pressure injury risk assessment tool).</td>
<td>Nutrition screening: nursing staff and/or Allied Health Assistants</td>
<td>Subacute care setting</td>
<td>Frequency of nutrition screening should be determined according to the type of sub-acute facility - For shorter LOS rehabilitation, repeat</td>
<td>See corresponding references below table: 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17</td>
</tr>
<tr>
<td>• Patients with an MST of 2 or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Malnourished patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Why – reason for dietetic intervention</td>
<td>How</td>
<td>Who</td>
<td>Where</td>
<td>Frequency for intervention</td>
<td>Comments/ Evidence</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>-----------------------------</td>
<td>---------------------</td>
</tr>
</tbody>
</table>
| Patient groups that are at high nutritional risk including:  
  - Severe heart failure  
  - Complex gastroenterology conditions  
  - High risk cancer  
  - Hip fractures  
  - Chronic Liver Disease  
  - Pressure injuries >Stage 2 and unstageable hospital acquired pressure injuries  
  - Stroke patients  
  - Acquired Brain Injury  
  - Complex post surgical cases | Consider blanket referrals for patients at high nutritional risk. If a lack of appropriate resources prevents this approach, reliance on nutrition screening and/or multi-disciplinary referrals and malnutrition prevention systems (nourishing diets, feeding assistance as required, weekly weight monitoring) is appropriate.  
  Automatic feeding pathways and referrals for acute stroke patients who are managed within a subacute setting  
  Ensure menu systems allow for provision of appropriate, safe and nutritionally adequate food and meals with appropriate variety for long stay patients.  
  Consideration of food service systems to maximise nutritional | Initial nutrition assessments should be completed by the Dietitian.  
  Monitoring and evaluation may be delegated to a nutrition assistant (where available) regardless of nutritional status / intake if patient only requires systematic nutrition care after first or second review  
  Patients receiving alternative nutrition e.g. tube feeding or TPN would be an exception to the above and not appropriate to delegate to nutrition assistant  
  Where appropriate the Dietitian should actively participate in overall rehabilitation |  
  - For longer/residential LOS rehabilitation, repeat nutrition screening monthly  
  - Re-assessment of nutritional status is recommended on a monthly basis when there is a suspected change in nutritional status or to provide pre and post intervention comparison. |
<table>
<thead>
<tr>
<th>Why – reason for dietetic intervention</th>
<th>How</th>
<th>Who</th>
<th>Where</th>
<th>Frequency for intervention</th>
<th>Comments/ Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient choice of meals and midmeals to be at point of service, or as close to meal times as possible; dining room environment and meal time experience should be conducive to encouraging intakes. Refer to food service evidence area above.</td>
<td>intakes.</td>
<td>and patient centred goal setting</td>
<td></td>
<td></td>
<td>5,6</td>
</tr>
<tr>
<td>Consider blanket HPHE meals and mid meals for at-risk groups and all appropriate long stay patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13,14</td>
</tr>
<tr>
<td>Why – reason for dietetic intervention</td>
<td>How</td>
<td>Who</td>
<td>Where</td>
<td>Frequency for intervention</td>
<td>Comments/ Evidence</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>-----------------------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>
| consent. These goals should form part of the broader rehabilitation goals.  
• Consider nutrition supplementation including use of Supplements as Medication (SAM) or Med Pass to assist in meeting nutritional & clinical outcomes.  
• Dietary education &/or counselling (with or without supplements) may improve nutritional intake, weight & other outcomes. | Dietary education &/or counselling (with or without supplements) may improve nutritional intake, weight & other outcomes. | Treating team | Subacute care setting | As clinically indicated | LOW and MEDIUM PRIORITY |
<p>| Routine screening for micronutrient deficiencies should be considered, including Vitamin D, Folate, and/or Vitamin B12., especially in groups identified as at risk. | Consider supplementation to treat those identified as at risk of nutritional deficiencies including Vit D, Folate and/or Vit B12. | Treating team | Subacute care setting | As clinically indicated |</p>
<table>
<thead>
<tr>
<th><strong>Why – reason for dietetic intervention</strong></th>
<th><strong>How</strong></th>
<th><strong>Who</strong></th>
<th><strong>Where</strong></th>
<th><strong>Frequency for intervention</strong></th>
<th><strong>Comments/ Evidence</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifestyle disease education &amp;/or counselling for patient and /or family/carer where relevant post stroke /acquired brain injury &amp; upon referral from MO or MDT when impacting upon rehabilitation. Lifestyle disease education may include weight reduction/management counselling.</td>
<td>Group education sessions may be considered for this purpose if numbers allow. Referral to community Dietetic services for chronic disease management and weight management where appropriate rather than counselling at the bedside for chronic disease.</td>
<td>Dietitian or Nutrition Assistant Community Dietitian or alternative service provider such as private practice</td>
<td>Subacute care setting</td>
<td>As clinically indicated</td>
<td></td>
</tr>
</tbody>
</table>

**Evidence**

1. Evidence based practice guidelines for the nutritional management of malnutrition in adult patients across the continuum of care  


14. NHMRC : Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia 2013

16. Health Workforce Australia: Assistants and support workers: workforce flexibility to boost productivity – Full report

17. Example of Goal Setting tool: Rivermead Goal Setting Tool
Appendix One: Summary of Edits

Summary of subacute care evidence chapter review edits from the update to volume 2.0

<table>
<thead>
<tr>
<th>Changes to the FEEDS chapter as per the adult review teams</th>
<th>Changes to the FEEDS chapter as per the paediatric review teams</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Added</strong></td>
<td><strong>Added</strong></td>
</tr>
<tr>
<td>Prevention of pressure injury</td>
<td>With the nutrient requirements added a comment that this for burns and put in a comment that requirements are age and weight dependent and to refer back to Guidelines.</td>
</tr>
<tr>
<td>Australian Wound Management Association, Standards for Wound Management, 2010</td>
<td>Added Pressure Injury – Paeds:</td>
</tr>
<tr>
<td>National Safety and Quality Health Service Standards. Standard 8 Preventing and Managing Pressure Injuries</td>
<td>- Regularly assess the nutritional requirements of critically ill paediatric patients who have, or are at risk of, a pressure injury</td>
</tr>
<tr>
<td>Added fluid requirements and recommendations to refer back to DAA Guidelines for obese and SCI</td>
<td>- Ensure adequate hydration</td>
</tr>
<tr>
<td>Chronic leg ulcers</td>
<td>- When intake is inappropriate consider age appropriate supplementation for those at risk of a PI and at risk of malnutrition</td>
</tr>
<tr>
<td>Added Individual assessments for wound management should include a nutritional assessment. Elevated protein requirements may be as high as 1.5-2.0g protein/kg/day in patients with heavily exuding ulcers. Heavily exuding wounds may have elevated fluid requirements, if they have no fluid restrictions from comorbidities</td>
<td>- If oral intake is inadequate, consider enteral or parenteral (as appropriate) nutrition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Changed</th>
<th>Updated links</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed order of points in treatment of PI section (why heading) and changed recommendation of supplementation for stage 3 – 4 to stage 2, this reflects DAA guidelines to consider at stage 2. Slight change of wording in this section.</td>
<td>Clinical Practice Guideline [International] 2014 Abridged Quick Reference Guide (Downloadable): “Paediatrics on page 61-62” [link]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Removed</th>
<th>Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan Pacific guidelines removed as superseded by the International Guidelines</td>
<td>Updated links</td>
</tr>
<tr>
<td>Nil</td>
<td>Removed</td>
</tr>
</tbody>
</table>

Nil
Appendix Two: Members of the FEEDS Implementation Steering Group

**Chair:** Jan Hill, Director Nutrition & Dietetics, Princess Alexandra Hospital, Metro South Hospital & Health Service

**Secretary & Project Officer:** Rhiannon Barnes, Statewide Program Manager Clinical Education & Training, Nutrition & Dietetics, Royal Brisbane & Women’s Hospital, Metro North Hospital & Health Service

**Members:**

- **Dr Adrienne Young**, Research Coordinator Nutrition & Dietetics, Royal Brisbane & Women’s Hospital, Metro North Hospital & Health Service
- **Alan Spencer**, Director Nutrition & Dietetics Gold Coast University Hospital, Gold Coast Hospital & Health Service
- **Annabel Biven**, Senior Dietitian, Ipswich Hospital, West Moreton Hospital & Health Service
- **Cristal Newman**, Senior Dietitian, Roma Hospital, South West Hospital & Health Service
- **Kate Rose**, Senior Dietitian, Longreach Hospital, Central West Hospital & Health Service
- **Katie Barwick**, Senior Dietitian, Lady Cilento Children’s Hospital, Children’s Health Queensland Hospital & Health Service
- **Liza-Jane McBride**, Team Leader, Allied Health Professions’ Office Queensland
- **Sally McCray**, Director Nutrition & Dietetics, Mater Group
- **Dr Merrilyn Banks**, Director Nutrition & Dietetics, Royal Brisbane & Women’s Hospital, Metro North Hospital & Health Service
- **Mia Hemingbrough**, Director Nutrition & Dietetics Central Queensland Hospital & Health Service
- **Dr Rachel Stoney**, Director Nutrition & Dietetics, Redland Hospital & Wynnum Health Service, Metro South Hospital & Health Service
- **Rosemary Sander**, Professional Lead Nutrition & Dietetics, Sunshine Coast Hospital & Health Service
- **Sally Courtice**, Director Nutrition & Dietetics, QEII Hospital, Metro South Hospital & Health Service
- **Zoe Walsh**, Team Leader, Community Indigenous & Subacute Services, Metro North Hospital & Health Service