



Director of Public Health
Annual Report 2017/18

Preventing and Treating Malnutrition



Content

Foreword

Recommendations from
Director of Public Health Annual Report 2014/15 - an update

Preventing and Treating Malnutrition
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Foreword

Welcome to the first instalment of my Annual Report for 2017/18. I am required to publish an Annual Report every year, and for the past 26 years I have done that as a single document once a year. I always welcome feedback on my Reports, and I try to take that feedback into account when preparing each Report. Over the last couple of years a consistent comment has been that the Reports are quite long and detailed, and can be quite daunting to sit down and read once a year. So this year I will be trying something quite different. Instead of publishing it as a single document once a year I will be publishing my Annual Report in six instalments at two monthly intervals. Each instalment will cover a different topic. Over a three year cycle I will, by doing this, cover all of the priority topic areas covered my directorate. I hope you like this new format and find it easier to digest. I will as always welcome feedback on this format and of course on the content.

The topic covered in this first instalment is the prevention and treatment of an important form of malnutrition – undernutrition. I reported last year on the principal other type of malnutrition – overnutrition – which usually presents itself as overweight or obesity.

It often comes as a surprise to people to learn that we have a problem with malnutrition in Scotland. Most people associate malnutrition with famines in other parts of the world which are regularly covered in the media. The reality is that, here in Tayside, at any one time there are likely to be in excess of 8,000 older people who are malnourished. This Report covers in detail the approaches being used in Tayside to prevent and treat this significant public health issue. It addresses some of the successes we have had, but it also identifies a number of continuing challenges.

I hope you find it interesting, and helpful. I am very grateful to Dr Janet Baxter, Nutrition and Dietetic Service Lead (Nutritional Support), Linda McGrath, Nutrition and Dietetic Service Lead (Community Food and Health), Caroline McKenzie and Jacqueline Walker, Tayside Nutrition Managed Clinical Network Programme Managers and Joyce Thompson, Dietetic Consultant in Public Health Nutrition for preparing this Report. My thanks go also to Lesley Marley, Directorate Manager, Public Health, who on my behalf has commissioned, coordinated and edited the Report and to Alistair McGillivray, Graphic Design and Publications Manager, for the design and production.

Dr Drew Walker
Director of Public Health
April 2018

Update on recommendations from Director of Public Health Annual Report 2014/15

Implementation of NHS Healthcare Improvement Scotland (HIS) Food, Fluid and Nutritional Care standards (2014)

The Tayside model takes a pathway approach, transcending health and social care partnerships, secondary care, general practices, care homes, third sector and community groups.

Development of standard operating procedures and protocols for the food, fluid and nutritional care policy which includes paediatric and maternity services

This work continues. In partnership with NHS Tayside paediatric and maternity services, a protocol for the 'preparation and feeding of an infant/neonate with a ready-to-feed infant formula and powdered infant formula' is underway.

Review of the maintenance and provision of weighing and measuring equipment to ensure all patients are weighed and measured on admission

Work was undertaken with the paediatric service to review the measuring equipment they have currently. Where there are gaps, services were advised on the correct equipment to ensure accurate weighing and measuring of children and young people.

Referrals to the Nutrition and Dietetic Service

An audit of in-patient dietetic referrals from Perth community hospitals and Ninewells Hospital showed 93% were seen within 72 hours (February 2017). An audit within Royal Victoria Hospital, Angus hospitals, Perth Royal Infirmary and the mental health service is underway.

Nutritional analysis of the therapeutic recipes and menus to ensure compliance with Food in Hospitals (2016)

Nutritional analysis of menus and recipes was stopped in late 2017 following the announcement of a strategic review of NHS Tayside catering.

Capturing patient feedback on food, fluid and nutritional care

In addition to the completion of an annual return to Health Facilities Scotland describing patient experience of food and fluid provision, we are looking at new ways to capture extra feedback, such as patient stories.

Contributing to the National Catering Production Strategy (2016)

NHS Tayside staff contributed to the development of the NHS Scotland National Catering Production Strategy which was agreed by NHS Scotland Chief Executives in 2016.

Contributing to the undergraduate medical education/other opportunities for training

Staff from the Directorate of Public Health and the Nutrition and Dietetic Service contribute to the medical education curriculum. A new model is being tested at Perth Royal Infirmary and sessions on the Malnutrition Universal Screening Tool ('MUST'), oral nutrition supplements and provision of food are delivered by catering and dietetic staff. Dementia training was delivered to the Nutrition Link Nurses. Dietitians and nurses contribute to the nutrition sessions for Year 1/2 nursing students at the University of Dundee.

Early intervention beyond the hospital setting

This is covered in the main report.

Preventing and Treating Malnutrition

Introduction

When we refer to the term 'malnutrition' in this report we are talking about undernutrition. This is when people are unable to eat enough to maintain their weight and/or their health and wellbeing.

Malnutrition can be a cause or a result of ill health. It can increase hospital stays and can lead to greater health and/or social care costs. For older people in the UK the total cost of malnutrition to health and social care is about £11.9 billion each year¹.

Unfortunately malnutrition is a silent and all too often hidden problem which may not be picked up until a huge weight loss has occurred. Malnutrition can be hard to recognise and warning signs may include:

- Unplanned weight loss and/or loose clothes, rings, bracelets, or dentures.
- Reduced appetite and food intake.
- Reduced mental and/or physical ability to perform day-to-day tasks.
- Mood changes and/or lack of concentration.
- Poor growth in children.

The reasons why a person becomes malnourished are varied and may include²:

- Medical – ill health or certain diseases such as cancer or dementia.
- Physical – disabilities such as arthritis, sight or dental problems.
- Social – living on a low income, lack of cooking skills, not able to prepare healthy meals, attitudes around weight loss and nutrition, dealing with the death of a loved one, social isolation and loneliness.
- Organisational – not offered the correct food and drink, not able to eat and drink enough to meet dietary needs, not spotted as malnourished or at risk, not treating malnutrition well.

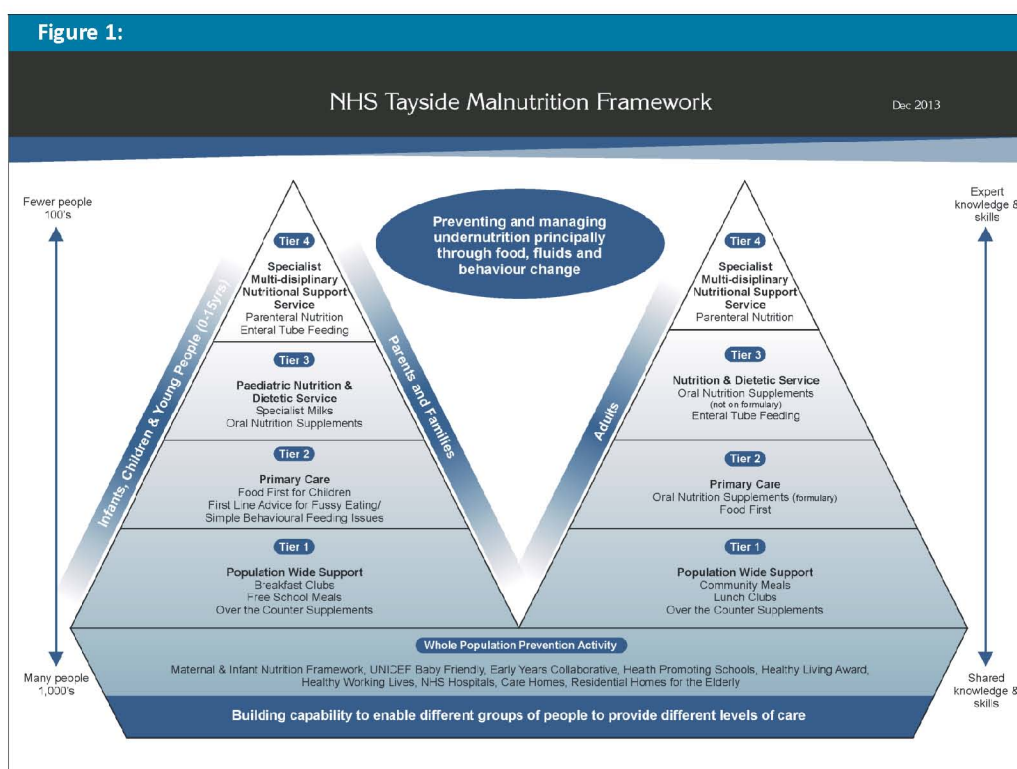


Preventing and Treating Malnutrition

Many people are taken aback to find out that so many of our older friends and family are at risk of malnutrition. Around one in ten people over the age of 65 is malnourished³. This means of the 86,370 older people in Tayside over 8,000 are thought to be malnourished. Most people with malnutrition in the UK live at home (93%). However, malnutrition is more common in hospitals and care homes and in Tayside a recent survey^{4,5} showed:

- 16% of adults were at risk of malnutrition on admission to hospital compared to 34% in the UK.
- 19% of adults were at risk of malnutrition on admission to a long-stay mental health unit compared to 13% in the UK.
- 36% of residents were at risk of malnutrition on admission to a care home which was similar to the rest of the UK (37%).

In Tayside our approach to preventing and treating malnutrition needs to be based on communities coming together to tackle the issue. This includes health and social care partnerships, hospitals, general practices, care homes, third sector and community groups. This means everyone works jointly by spotting early signs and putting support in place as quickly as possible. It also means making sure people can get the expert nutrition and dietetic care when they need it (Figure 1).



Preventing and Treating Malnutrition

In this report we will share some of the work which shows where we are working with a joined-up approach. It also looks at areas where we are reducing inequalities and applying key values to our work.

- Reducing inequalities – tackling the unfair and needless differences in people’s health across social groups.
- Applying key values:
 - Co-production – involving people in the design and delivery of services.
 - Applying an asset based approach – using the skills and knowledge of people and the connections and resources within communities and organisations.
 - Taking health literacy into account – helping people to obtain, process, and understand basic health information and the services needed to help them make the right health decisions.
 - Using technology – by means of digital online and mobile applications to offer people greater access to information and services.

Preventing Malnutrition in the Community

What is the problem?

Most malnutrition can be avoided and treated unless it comes with a serious illness, in which case expert dietetic care is required. However:

- Awareness of malnutrition is low in the wider community.
- Many community health and social care staff are not trained to spot and treat malnutrition.
- Many community health and social care staff find it hard to spot and treat malnutrition.
- The number of older people is rising and so more and more people are at risk.
- Social problems are often the most complex to tackle.

The causes and end results of malnutrition are complex and can occur together. For example, a person who becomes malnourished is at greater risk of ill health and injury which may make it a problem to eat well. Likewise, a medical problem or disability may affect a person’s mental wellbeing or ability to carry out daily tasks such as preparing food.

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Anyone in the community who is under the care of NHS staff should be screened for malnutrition and treated⁶. Until lately the focus has been on hospital in-patients and so training was aimed at hospital rather than community staff. Nutritional care in hospital discharge plans is not always seen as a big concern. This can leave people at home in the community at greater risk of weight loss and ill health.

What are we doing about it and how and where are we applying key values?

In the past we have not paid enough attention to preventing malnutrition in the community. We know most malnourished people live at home and may be hard to reach with services and treatment. Once linked with the health and social care system it should be much easier to screen people, identify risk and help them access the help and support they need.

Low income is an important reason why some people endure poor health and wellbeing. This is because it can affect basic needs like heating, transport and food. It also affects opportunities to meet people and socialise or stay in touch with family and friends; this can lead to loneliness and despair.

In 2017 Dundee's Health and Social Care Partnership funded a project to help prevent malnutrition in older people living in the city. The work was led by NHS Tayside Nutrition and Dietetic Service together with Dundee Voluntary Action. The project combines nutrition and dietetic knowledge with the skills and information of local people. It aims to:

- develop a local approach to tackling malnutrition
- raise awareness of malnutrition, and
- improve the nutritional care knowledge and skills of staff, carers and volunteers.

Coldside Community Area was selected as it is one of the more disadvantaged areas in Dundee. Coldside also has a higher share of older people living in the area (19.6%) compared to the rest of the city (17.4%)⁷. The area also has the second highest amount of people aged over 65 years with one or more health conditions. Social care and support needs are high compared to the rest of the city.

An early engagement exercise involved visiting a number of local groups, speaking with people living in the area and linking to networks and organisations. After that, people were invited to work together to design a whole neighbourhood approach to

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preventing malnutrition. Thirty eight people from a range of organisations and the community attended a 'Nourishing Coldside' event in November 2017. There were five concerns identified and local people selected two areas to work on:

- cooking skills, and
- sharing information.

The project also aimed to help staff and volunteers to better understand the risks of malnutrition, to recognise warning signs, to provide appropriate dietary advice and to signpost to extra support as needed. This involved testing the Royal Environmental Health Institute of Scotland training module 'Eating Well for Older People'.

Preventing and Treating Malnutrition

Treating Malnutrition

Screening, identification and management of malnutrition are needed to ensure people get the right treatment. Treatments may include one or more approaches depending on a person's disease state, gut function and severity of malnutrition. Approaches include:

1. Food First – uses food and drinks which contain as much nutrition (energy, protein, vitamins and minerals) as possible.
2. Oral Nutritional Supplements (ONS) – these are liquids, semi-solids or powders (mixed with whole milk), which provide extra nutrition.
3. Complex Nutritional Care – this means putting a feeding tube straight into the stomach (enteral tube feeding) or into a vein (parenteral nutrition).

Food First Approach in Hospitals

What is the problem?

In hospital each person's dietary requirements are met using a variety of menus which are designed and reviewed with the public. These menus are planned to meet the different dietary needs of our diverse population.

When admitted to hospital most adults should have a nutritional assessment undertaken. They should also be screened for malnutrition using the Malnutrition Universal Screening Tool ('MUST')⁶. A personal nutritional care plan is then put in place to ensure each person's food and fluid needs are met during their hospital stay. A nutritional care plan for discharge is prepared and shared with others to ensure care is continued at home.

**One in six
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One in six adults admitted to hospital in Tayside was assessed as malnourished⁵. High quality food and fluids are a vital part of clinical care and NHS Tayside provides around 4,000 in-patient meals every day. A number of changes has taken place which is

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making us review our Food First approach:

- Patients must be able to eat and drink what they need in order to get well and stay well. We were worried about high levels of food waste.
- NHS Tayside catering service aims to provide high quality food and drinks and maintain national standards⁸. It sees the need to modernise its approach to meet changing public expectations and future plans for NHS catering production in Scotland.
- NHS Tayside Nutrition Link Nurses have provided excellent nutritional care leadership at ward level for many years. Of late, the impact of various hospital system changes shows the need to have another look at this model.

What are we doing about it and how and where are we applying the key values?

To address the issue of food waste we worked with staff and patients who told us three courses at lunch time and at the evening meal was too much. This issue was contributing to the waste problem. We changed to two courses and people said it was much better. At home, people choose two course meals and this provides enough to eat. We changed the way we give out snacks as well. Snacks are now given out by ward staff when needed rather than being sent on patient trays at meal times. An electronic catering system called prodPlan+ is also being brought in to assist caterers with ordering recipe ingredients and checking food waste.

NHS Tayside is also working on a long-term plan for catering to make it fit with a National Catering Production Strategy for NHS Scotland⁹. This work has involved various healthcare staff as well as patients and carers from the very start. It aims to bring about a much more person-centred approach to eating and drinking in hospitals. The plan will also make use of new technology such as 'Bedside Electronic Patient Meal Ordering'. With this system in-patient menu orders will be taken at the bedside using an electronic tablet device and sent in real-time to the catering service. New ways of providing information to meet different literacy needs are also planned.

A review of the Nutrition Link Nurse model was undertaken and together we explored what worked well and where improvements could be made. This work will be reported in 2018/19.



Preventing and Treating Malnutrition

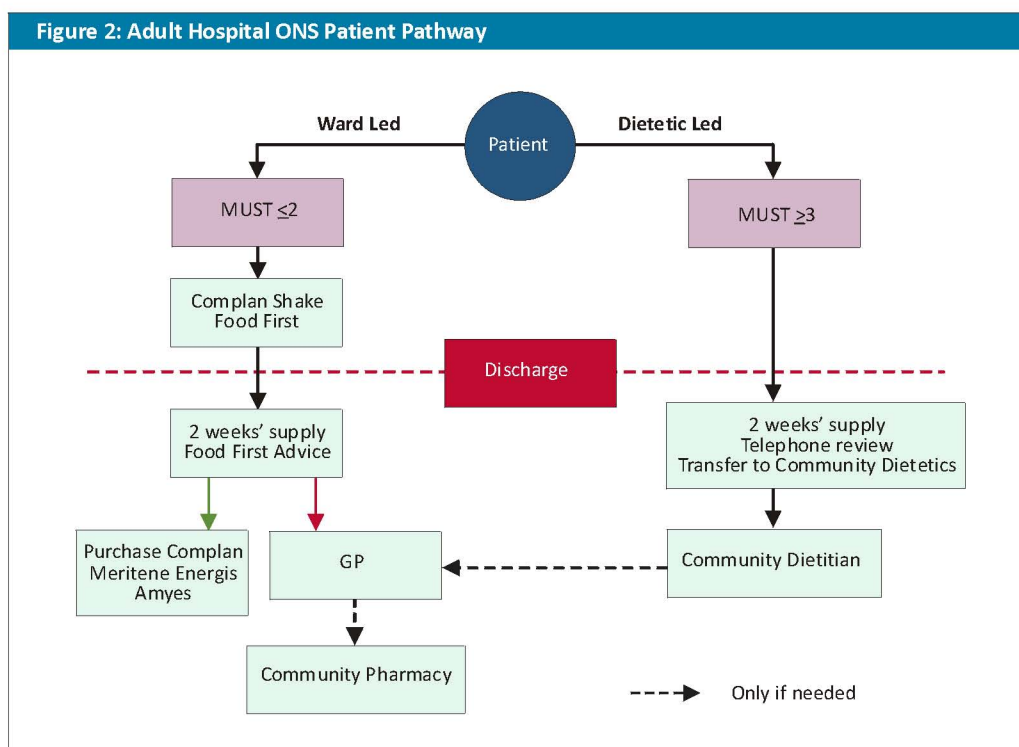
Oral Nutritional Supplements (ONS) in Hospitals

What is the problem?

It was common practice for all patients who were malnourished to be referred to a dietitian for advice. Over time the growing demand for dietetic input has led to longer delays in treatment. It was clear this approach was not suitable as problems with eating or drinking require urgent action by nursing staff. This includes being able to offer ONS.

What are we doing about it and how and where are we applying the key values?

Nurses, dietitians, pharmacists and previous in-patients got together and designed a new approach to getting ONS in hospitals (Figure 2). This new way is being rolled out across Tayside hospitals during 2017 and 2018. It lets nursing staff support people at low risk of malnutrition by using food from the menu, as well as snacks, drinks and certain ONS. People at high risk of malnutrition or those with complex nutritional care needs are cared for by dietitians. This approach makes sure faster action is taken by ward staff. It also means early efforts to improve nutritional intake are made before referring to a dietitian.



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At discharge, patients are now given a two week supply of ONS and self-care advice as part of their discharge plan. NHS Tayside Nutrition and Dietetic Service is also working with Heads of Nursing to identify malnutrition issues across the whole NHS system. Together they want to make sure people who need community nursing care after discharge from hospital also get their nutritional care needs addressed.

Nutritional Care in the Community

What is the problem?

For many people, the General Practitioner (GP) is the main point of contact with the health and social care system. GPs, dietitians, nursing staff and individuals using ONS recognised that people mainly access help with malnutrition through their GP. The GP would often prescribe ONS or refer the person to a dietitian. People not under the care of a dietitian were sometimes prescribed ONS which did not meet their needs and they were rarely checked. As a result there was overuse of ONS and unnecessarily high costs (Table 1).

Year	Total Cost
2015	£1,550,000
2016	£1,330,000
2017	£1,110,000

Source: Prescribing Information System for Scotland (PRISMS) - GP10 oral nutrition supplements data

At any one time over 2,000 people are prescribed ONS in Tayside¹⁰. Correct use of ONS is vital for ensuring patient safety. Stopping unnecessary use of these products reduces avoidable costs. Supporting people to consume normal foods and drinks of their choice also improves their quality of life.

What are we doing about it and how and where are we applying the key values?

Modernising nutritional care in the community involves dietitians assessing all the people who are getting ONS through general practices and in care homes.

Dietitians are finding almost half of people using ONS should stop and they should make use of normal food and drink instead. Most people who still require ONS need changes to their prescriptions. By the end of 2017 almost a quarter of general practices and a third of care homes had been reviewed. The reviews have led to a 28% fall in the cost of ONS since 2015 (Table 1).

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To ensure best value we came up with agreed lists of ONS drinks; one for hospital use, one for GPs and community nurses and one for dietitians. GPs and community nurses are now advised to prescribe ONS for limited periods only. People who need ONS for longer are moved over to the care of a dietitian. This means a person always sees the right member of the healthcare team. Text messaging is also being introduced to the dietetic system to help people self-care. The texting scheme then pulls all the information together for the dietitian to check.

During 2018 we are working with people using ONS, dietitians, GPs and community pharmacists to co-produce a new adult ONS pathway. The new pathway will remove the need for GP prescriptions and set up a new prescribing model.

Nutritional Care in Care Homes

What is the problem?

Malnutrition is more common in care homes than in the general population^{4,5}. In Tayside there are 97 care homes looking after over 3,000 residents. In 2017 the Care Inspectorate reported 45% of Tayside care home residents needed full support to eat and drink, 12% required a texture modified diet and 15% were prescribed ONS¹¹.

In care homes the risk of malnutrition is assessed using the 'MUST'. However, access to NHS Tayside's training on the use of the 'MUST' and provision of good nutritional care has been patchy due to limited dietetic capacity.

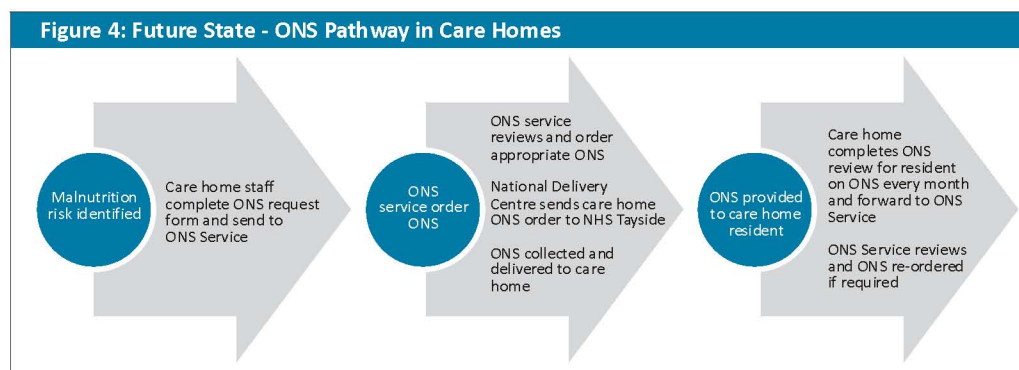
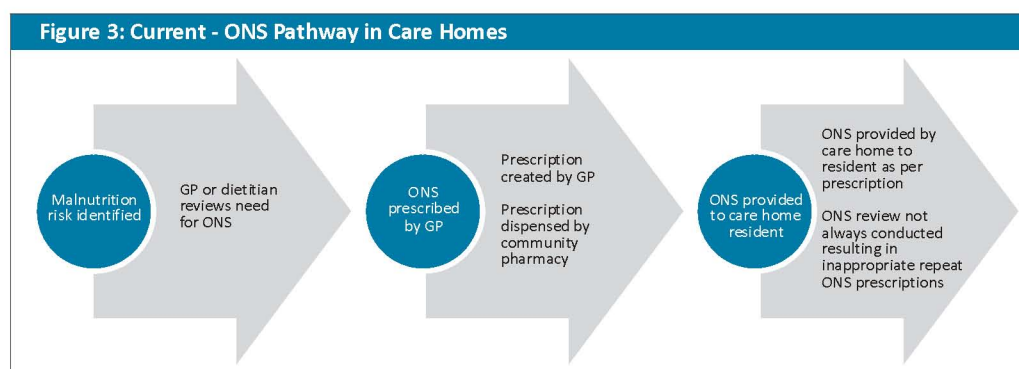


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The usage of ONS in Tayside care homes accounts for 20% of NHS Tayside’s total spend on these products. Tayside care homes are reported as the second highest users of ONS in Scotland¹⁰.

What are we doing about it and how and where are we applying the key values?

Reasons for the high ONS use in care homes are being explored. The ONS stakeholder event noted earlier in this report included care home staff. They identified issues within the current pathway (Figure 3) and helped co-design a new one (Figure 4). The pathway is being tested in one care home in Dundee and will result in similar improvements to the usage of ONS and a person’s care.



Future work also includes digital training for care home staff on nutrition and electronic support to help manage patients in care homes using ONS.

In May 2017 the Dundee Health and Social Care Partnership funded a one year project to look at four aspects of care homes:

- dietetic skill mix for supporting nutritional care
- working with partners who contribute to nutritional care
- the role of Nutrition Champions, and
- training on nutritional care.

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The outcomes of this project will be reported at the end of April 2018. They will be used to help decide the future dietetic input to the nutritional care of Tayside's care home residents.

Complex Nutritional Care

Previous sections of this report have described the oral (eating and drinking) ways of supporting people who are malnourished or at risk.

Complex nutritional care is the term used to describe nutrition provided to people by artificial means. This includes the terms enteral nutrition (through a tube) or parenteral nutrition (through a line directly into a vein). Both of these methods are used mainly in hospital, but they may be given at home if needed. These types of complex nutritional care are provided with expert support from the NHS Tayside Nutrition and Dietetic Service. A dietitian will assess each person and select the most suitable method for their situation.

We have pathways for the nutritional care of patients who require complex nutritional care at any point during their medical and/or surgical care. Close working relationships between dietetic, medical, surgical, pharmacy, nursing and supplies staff are vital. This makes sure we provide safe and effective complex nutritional care and a best value service.

What is the problem?

Enteral Nutrition

Tube feeding is used to nourish patients who cannot manage to eat or drink enough. This can be short-term and reasons can include cancer or a stroke. Sometimes long-term tube feeding is needed if there is an inability to swallow safely, for example in later stages of illnesses such as motor neurone disease or multiple sclerosis. Another example is when individuals with head and neck cancer may be given enteral tube feeding during and after treatment.

Dietitians advise and monitor both patients and carers. They also provide in-depth training to carers, care home and community nursing staff to help them give high quality care. At present 300 individuals are receiving enteral tube feeding at home across the whole of Tayside (230 adults and 70 children). Providing a good quality service to such a large number of people across rural and urban Tayside that avoids unduly travel for patients, carers and staff is challenging.

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Parenteral Nutrition

Most of this type of feeding occurs in people having major abdominal surgery. This method is given to over 200 people at Ninewells Hospital and Perth Royal Infirmary every year. Whilst this number is pretty steady every year, the length of treatment has increased due to the growing number of complex surgical cases. These patients require careful assessment and monitoring by an expert multi-disciplinary nutrition support team. The team includes senior medical, dietetic, pharmacy and nursing staff.

NHS Tayside is one of the major centres in Scotland managing chronic intestinal (gut) failure. This happens when a person cannot absorb sufficient food or fluids through their gut to maintain health. At any time there are about 30 people being treated at home with parenteral nutrition. Each person is trained to manage their own care and is monitored by the Nutrition Support Team. Treatment success means many people are now living much longer and as they get older some require support at home or in care homes. Nationally agreed procedures and protocols are now used to train both patients and carers.

What are we doing about it and how and where are we applying the key values?

We are looking at developing new ways of providing high quality support to the patients who need complex nutritional care. We are investigating the use of digital technology to keep in touch with individuals and/or carers, particularly in remote and rural areas.

Evidence-based, accurate and up-to-date information is important so there is regular revision of self-care information which is checked for readability and client acceptance.

The NHS Tayside Nutrition and Dietetic Service has reorganised its staff and redesigned its approach to nutritional support which conforms to national standards¹². We continue to develop, test, implement and review a set of local policies and procedures to ensure we can provide safe and effective complex nutritional care¹³.

Recommendations

We will:

Preventing malnutrition

- Continue to work together with local communities to design sustainable approaches to prevent malnutrition in older people.
- Produce a report on the evidence base to help inform and drive forward a whole system approach to preventing and treating malnutrition. This will include:
 - Demography of Tayside
 - National malnutrition policy drivers
 - Local malnutrition policy drivers
 - Malnutrition related data
 - Local nutritional care services and activities

Food First in Hospitals

- Consider how health literacy issues impact on nutritional care in hospitals and identify digital tools and technologies to suit different population subgroups.
- Continue to co-design a modernised NHS catering service.
- Complete the review of the Nutrition Link Nurse model and make recommendations for the future.

Nutritional Care in the Community

- Test a new ONS pathway for adults in the community.
- Complete the review of ONS across all general practices and care homes.
- Further test the use of digital technology to improve ONS monitoring.

Nutritional Care in Care Homes

- Source funding to test electronic recording of monitoring data on ONS in care homes.
- Develop and test online training on nutritional care with staff in Angus.
- Spread the new ONS model across Tayside.

Complex Nutritional Care

- Continue to implement and monitor national complex nutritional care standards.
- Consider new ways of providing staff education.
- Continue to develop new ways to improve self-care and monitoring of individuals receiving complex nutritional care.

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