Embedding Excellent Nutritional Care Practices on a Large Acute Hospital Ward

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**Summary of Project**
The project team recognised that excellent nutritional care practices weren’t always consistently applied across the Trust. Working with an acute respiratory ward the project team reviewed existing nutritional care practices and facilitated improvements. The project consisted of three key stages. Stage one was to complete a series of audits to review nutritional care. Stage two focused on engaging the ward team to review the nutritional care they provided, to enable them to take ownership and develop new ways of working to improve the care the patients received. To facilitate this, a series of time out sessions for staff were created to enable staff to think through the issues relating to nutritional care. A claims, concerns and issues exercise and a process mapping exercise were also undertaken. In stage three the audits from stage one were repeated to quantify the changes in practice. Improvements in practice were demonstrated. These included improved screening practices using the MUST tool, improved documentation of nutritional care, and a greater level of involvement of both registered and non registered nurses in the mealtime care of patients.

**Background to Project**
Nottingham University Hospitals (NUH) has proactively embraced nutritional care initiatives, for example scoring the Essence of Care Food and Drink benchmark, implementing protected mealtimes, red trays and introducing the Malnutrition Universal Screening Tool (MUST) across the organisation. However, on-going results from the benchmark scoring, and observations of mealtime care demonstrated that good practice did not appear to be consistently embedded at ward level.

The Malnutrition Universal Screening Tool (MUST) is a national tool developed and validated by the British Association of Parental and Enteral Nutrition (BAPEN) and is used to screen adult patients to identify their risk of malnutrition. Patients are screened on admission to hospital and rescreened throughout their hospital stay. This assessment allows a plan of care to be developed to address patient’s nutritional needs as required.

The Care Quality Commission (CQC) (2010) has given clear direction to hospital trusts in its nutritional requirements, and it has been widely published that meeting the nutritional requirements of patients improves outcomes in terms of functional benefits and length of stay in hospital (NICE, 2006; Tucker and Miguel, 2006). National Institute for clinical
Excellence (NICE) also states that the delivery of nutritional care should be well organised to allow for individual nutritional needs to be met.

The Director of Nursing at NUH asked the project leaders, in light of the concerns about inconsistent nutrition practices, to carry out a piece of work to explore the issues at ward level. This included setting a standard of nutritional care, evaluating this, and working with the ward staff to improve practice. It was envisioned that learning from this work would enable other areas to improve their nutritional practices. After discussion and consultation with the Assistant Directors of Nursing it was agreed that the nutritional standard would be, that ‘nurses know what their patients mealtime requirements are, what their patients have eaten and how this is working towards their MUST care plan.’

In order to discuss the standard and understand the issues, the project team carried out focus groups with a group of ward sisters who were undertaking the Royal College of Nursing (RCN) leadership course and a group of nutrition link nurses. Information from these groups, alongside common themes from the observations of care that the project team had already carried out, informed the project plan.

Feedback from the ward sisters showed a set of very mixed views. Many nurses felt that they were aware that they should be more involved in providing nutritional care, but other duties competed with this, such as paperwork, audits and human resource tasks. There was also an acknowledgement that many demands are placed on nurses’ time, which resulted in them not being able to provide fundamental care needs to the standard they would like, but also to achieve timely refreshment breaks. It was also felt that health care assistants should have more nutrition training to allow them to carry out a greater nutritional care role, with registered nurses being a ‘champion’ for this. The group also recognised that there needed to be more training on nutrition, and clear roles and responsibilities for all food service staff, registered and unregistered nursing staff.

The nutrition link nurses were asked for practical ways of improving nutrition practices at ward level, and they felt strongly that more training was needed at ward level, to allow staff to better understand the MUST tool and it's processes, and practical solutions to enable them to support patients with their nutrition. They also suggested that changes could be made to the way mealtimes are organised on their wards to ensure that meals were delivered, and patients monitored appropriately. Some nurses felt that they already achieved this on their ward and good practice was shared at this focus group.

From these focus groups the project team identified the need to look at both training needs, and mealtime practices to ensure that appropriate nutritional care was provided to patients. It was also felt that ward cultures had allowed nursing staff to move away from being involved in mealtime care and that the project needed to address the ward ‘culture’ to ensure that any changes in practice achieved became embedded into both practice and the culture of the ward.

The project team wanted to ensure that any change in practice would be transferable to any ward setting and therefore selected a large busy acute ward within NUH. The ward sister of a 28 bedded male respiratory ward was approached and agreed to support this project in her area.

At this time an application to the Patients First Programme from the Foundation of Nursing Studies (FoNS) was submitted and successful, which provided facilitated support for the project team and a small bursary.
The Trust’s Governance Department were also consulted to discuss the project plan, advice was sought around the type of data that would be most useful to collect in order to demonstrate a measurable difference in practice at ward level.

Aims
To provide a measurable improvement in the standard and consistency of patient’s nutritional care and experience on one ward.

Objectives
1. Collect information about current practice:
   • to identify nursing and ward practices in the delivery of nutritional care
   • to identify how the current service influences and impacts on patient experience by engaging patients through focus groups
   • to observe the current patient experience on the ward by carrying out observations of care
   • identify the values and beliefs of staff in relation to food and nutritional care and how this compares to the patients’ experience
   • to audit the use of current nutrition initiatives at ward level e.g. MUST screening, protected mealtimes, red trays
   • review current Essence of Care Food and Drink benchmarking scores

2. Facilitate improvements in practice:
   • to review the results generated from the data collection above
   • to identify with the ward team what good practice is
   • to make the necessary changes to improve the patient experience and standard of nutritional care
   • to develop a set of learning resources that can be used in clinical areas to support wards to develop excellent nutritional care

3. Evaluate effectiveness of facilitated changes in practice
   • to repeat the data collection to ascertain where improvements in practice have been made
   • to feed this back to the ward team, patients and other key stakeholders and address any further issues
   • to share good practice and make similar changes to practice across the organisation

Methods and Approaches
The project was carried out in 4 distinct stages.
• Stage 1 – Initial data collection.
• Stage 2 – Facilitation of changes in practice with the ward team.
• Stage 3 – Final data collection.
• Stage 4 – Dissemination of the results with the ward team and reflection on the project. This hadn’t been completed at the time of writing the report.

It is planned to roll out the lessons learned from this project to the rest of the organisation at a later date.

Stage 1: Initial data collection
The aim of this first stage was to establish a baseline of the nutritional care practices on the ward. Although at this stage the ward sister was informed which audits were being carried out, the ward team were informed only that they were about to be involved in a nutrition related project. This was to ensure that they didn’t change their practice at this stage, as the project team wanted to ensure that the audits would show a realistic representation of what practice was like before the facilitation stage began.
For all the audits, all data collected was anonymized and no reference was made to specific individual nurses. Verbal consent was gained prior to collecting any data.

Several aspects of care were reviewed, these were:

a) **The screening of patients for their nutritional risk using MUST.** Members of the dietetic department agreed to carry out an audit of the MUST documentation on every patient on the ward on a particular day, using a pre-existing MUST audit tool (see appendix 1). This was to ascertain whether the MUST screening tool had been completed correctly, and whether the appropriate care in relation to the score had been documented.

b) **The provision of nutritional care at mealtimes.** The project team felt that they needed to observe and understand how the mealtime process provided nutritional care for patients at mealtimes, so it was decided that a mealtime observational audit would be carried out. A significant amount of time was spent developing this observation tool (see appendix 2), as the project team needed to ensure that the tool allowed for observed practice to be measured in a way that would provide meaningful results when it was analysed. In order to capture meaningful information, both qualitative and quantitative data was collected. The tool reflected good nutritional care at mealtimes, based on national good practice guidance (National Patient Safety Agency, 2007; Royal College of Nursing, 2007; Care Quality Commission, 2010) and local policies. Once the tool had been developed it was piloted to ensure that it would be effective at measuring what was required, and that the observers were consistent in documenting observed practice.

A total of five mealtimes (two breakfasts, two lunches and one supper) were observed. This allowed for most ward staff to be part of the audit at least once. At the beginning of the observation, staff and patients were informed that observation of care was being carried out. Information was collected on numbers of nursing staff present on the ward, how long the meal service took, whether the food service assistant (FSA) was made aware of the mealtime needs of patients, and what other activities were taking place on the ward at mealtimes. The largest amount of time was spent observing what activities and interactions the FSA and nursing staff were undertaking with patients during the mealtime, and whether patients were prepared for their meals, supported with their choice of meals, assisted appropriately to reach and/or eat their meal, and had their intake monitored. For the purposes of this audit, the project team differentiated between the types of assistance that maybe required by patients. The term ‘general assistance’ is used to encompass those activities that support the patient to eat the meal, for example, cutting up food, opening packets and turning plates. The term ‘physical assistance’ is used when patients were physically unable to feed themselves. Two members of the project team observed each mealtime, each observing two patient bays and two side rooms.

c) **The attitudes of nursing staff around the importance of nutritional care and how confident they were in consistently providing this.**

The project team wanted to ascertain how nurses felt about the importance of nutritional care, whether they felt that it was part of their role, and how confident they felt in delivering this. They also wanted to ask the nursing staff if they felt that they consistently delivered the necessary nutritional care. To do this a questionnaire (see appendix 3) was developed and piloted on another ward prior to its use. The questionnaires, which were anonymous, were distributed to the ward team to complete and were collected later by the project team. A total of eighteen nurses (registered and non-registered) completed this questionnaire.
d) **Assessment of the agreed standard that ‘nurses know what their patients’ mealtime requirements are, what their patients’ have eaten and how this is working towards their MUST care plan.**

The project team wanted to know if a nurse knew about the nutritional needs of their patients, whether they knew what those patients had eaten and whether this was reflected in the MUST documentation and nutrition care plan for these patients. The project team devised an audit tool (see appendix 4) which tested this standard, which was again piloted elsewhere prior to its use. The tool required the project team to have a short conversation with the registered nurses (RNs) in order to assess the nurses’ knowledge about their patients’ nutritional needs and MUST score. The project team then reviewed the patients nursing documentation to ascertain if the documentation accurately reflected the information that had been given. A total of eight RNs were asked about two patients each.

e) **Review of existing information.**

The project team also reviewed existing information about nutritional care practices for the ward, which were captured from other sources, for example the Essence of Care Food and Drink benchmark scores, compliments and complaints information and Trust’s patient experience questionnaire.

f) **Discussion regarding patient involvement**

The project team met with the Patient Partnership Involvement lead for the Trust to discuss the project and its aims. It was felt at this stage that there wasn’t a requirement for the project team to question patients separately, but to use the patient information from the Picker Survey, patient experience questionnaires and Patient Environment Action Team (PEAT) inspections that the Trust already had. The project team did attend a Patient Partnership Group (PPG) meeting to present the projects aims and objectives. At this meeting support for the project was shown and feedback requested as to the outcomes and progress of the project.

The project team had the support of the Trust’s Governance Department in developing the audit tools. The governance department also scanned the audit tools and provided the project team with the results. The results from these aspects of care were reviewed and analysed by the project team and used to inform the next stage of the project.

**Stage 2: Facilitation of changes in practice with the ward team.**

After the initial data collection was completed, the project team and ward sister planned time out sessions for the ward team, in order that every member of staff had an opportunity to hear the findings from the data collected and get involved in taking the project forward. The sessions provided the ward team with protected time to focus on nutrition away from the busy ward. The half day sessions ran twice, one week apart, and all the nursing team attended one of the sessions. The FSA and ward reception staff also attended. The ward sister attended both workshops to provide her support to the ongoing project and to hear the views of her staff. The first workshop was attended and facilitated by the practice development facilitator from FoNS, whose help was invaluable and gave the project team the confidence to facilitate the second workshop themselves.

At the start of the session, the group were asked to comment about what they would like nutritional care to look like for their loved one or relative, and this was documented on a flip chart. This was carried out as an icebreaker but also to get the staff to consider nutritional care from the patients’ perspective. Key themes that emerged from these discussions included:

- quality of the food itself and the way it is provided to the ward
• nurses having enough time to position patients prior to meals and to feed and assist patients
• patients having enough time to eat their meals, without interruptions
• nurses being aware of what patients needs are and what they have eaten

The project team then outlined the project plan in more detail, and the findings of the data collection was shared with the groups. This generated a lot of discussion from each group, who recognised what they did well, and where they could improve. Some changes that could be made to the mealtime process were already being suggested at this stage.

The groups then went on to list what they felt excellent nutritional care would look like. Again a lot of discussion was generated and key themes included:

• nurse having a good understanding of MUST and MUST scores being completed on all patients accurately
• patients having care plans related to their MUST scores and those patients requiring red tray and/or food charts being easily identified
• organised mealtimes, with a team approach and better communication with the FSA. Nurses would be aware that the mealtime was starting, wouldn’t be distracted from mealtime duties and there would be a consistent approach to mealtimes
• nurses would have a good knowledge of the catering system and know how to access food for patients at any time of the day

Finally the group were asked to explore their perspectives around nutritional care using Guba and Lincoln’s (1989) claims, concerns and issues exercise.

<table>
<thead>
<tr>
<th>Claims:</th>
<th>When asked ‘what would be good about providing excellent nutritional care’ the group responded enthusiastically. Claims included:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• improved teamwork and communication - staff would work together, including the FSA, and staff would communicate about what patients nutritional needs were</td>
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<tr>
<td>• food provision - patients would receive a better variety of snacks and use the menus more effectively</td>
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<tr>
<td>• improved patient experience - patients would feel valued, would receive the help and encouragement they needed and individual nutritional needs would be highlighted</td>
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<tr>
<td>• improved outcome for patients - everyone’s nutritional needs would be met, weight loss minimised, reduced length of stay for patients, a quicker recovery, and this would help to prevent pressure sores</td>
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<tr>
<td>• improved outcome for staff - staff felt they would get uninterrupted time in their bay with their most vulnerable patients</td>
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<tr>
<td>• improved mealt ime care - improved timings for meals, specific time dedicated for assisting patients with their meals, and the positive effect could lead to positive changes on other aspects of the ward routine</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Concerns:</th>
<th>There were a number of concerns raised about improving the nutritional care of patients. When the project team analysed these, five themes emerged. These were:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• engaging ALL staff/improving communication</td>
<td></td>
</tr>
<tr>
<td>• impact on other aspects of care/routines/workload</td>
<td></td>
</tr>
<tr>
<td>• location and completeness of paperwork</td>
<td></td>
</tr>
<tr>
<td>• lack of education, training and awareness relating to MUST and the use of red trays for example</td>
<td></td>
</tr>
<tr>
<td>• provision of diet/supplements/drinks</td>
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</tbody>
</table>
**Issues:** These concerns were collated into a list of ‘issues’ or questions. From these, four emerging themes were identified and developed into four action points. These were:

- how do we engage the whole team to be committed to improving the nutritional/mealtime care on the ward?
- what education and training do we need?
- how do we ensure our nutrition paperwork is simplified and in one place?
- how do we organise our day to achieve this without compromising other aspects of care?

Following the workshop, these four actions were shared with the ward team as a flip chart poster in their staff room. Ward staff were invited to provide thoughts and ideas to the four themes above, during break times, and as thoughts and ideas developed during their work on the ward.

Over the next few weeks, the project work centred around taking forward the four actions, details of how each of these were addressed are given below in turn.

1. **How do we engage the whole team to be committed to improving the nutritional/mealtime care on the ward?**

   Leadership from the ward sister and the inclusion of all staff at all stages of the project, resulted in all staff having the chance to contribute to discussions and raise any concerns or ideas that they had. Additionally the profile of nutritional care was raised during day to day practice, for example MUST scores were recorded on hand over sheets, nutritional requirements of patients were routinely discussed at handover and a handover sheet was developed for the FSA. This in turn led to all staff being committed to improving the nutritional care on the ward. The project team feel that having all of the team involved is one of the key factors in the success of this project.

2. **What education and training do we need?**

   The nutrition link nurse reviewed the MUST documentation on the ward and decided to undertake staff training on this. After a short meeting with a member of the project team, the ward nutrition link nurse began providing one-to-one training with each registered nurse on the ward to ensure that they had the knowledge to nutritionally screen patients correctly, and answered any queries they had, with a view to improving MUST practices. In addition to this the nutrition link nurse also facilitated all staff to update their mandatory food safety training.

3. **How do we ensure our nutrition paperwork is simplified and in one place?**

   After the first workshops, the nutrition link nurse began making changes to the way the MUST documentation was organised to ensure that it was easily accessible. A decision was made to put MUST documentation and care plans at the end of patients beds so that nurses and dieticians had the information easily available. Additionally the existing outdated generic care plan was removed.

4. **How do we organise our day to achieve this without compromising other aspects of care?**

   In order to address this, the project team and ward sister decided to plan a second set of morning workshops to carry out a process mapping exercise of the ward activities over the mealtime periods. Again all the ward staff attended either one of the workshops. In order to acknowledge the work already initiated by the staff, the team were asked to identify those changes already underway to address the 4 action points which have been outlined above.

   During this workshop session the group then process mapped each meal time, each at a different time of the day, to identify how the mealtime fitted into the ward and what other activities were taking place at the time. The group was split into three smaller groups, each...
process mapping one of the mealtimes. The process map was completed for a 1½ hour period of the day during which the mealtime would take place ie. 8am – 9.30am for breakfast, 11.30am – 1pm for lunch and 4.30pm – 6pm for supper. For these periods of time all of the activities, and the members of staff completing them were identified along the timeline. A lot of discussion took place within the groups about things that they do well and areas that need improvement. The groups identified that breakfast and suppertime were the busiest times of the day, in terms of the amount of other activity that was taking place on the ward alongside the meal service, and how this might be addressed. All of this information was then used to inform the subsequent workshop.

During this second workshop the group were updated on the activities of the first workshop group and were given the opportunity to add to this work. This group was then split into three smaller groups and given one of the mealtime process maps to work on in more detail. Each group was then asked to review these process maps and consider what changes were needed in the processes to ensure that nutritional care at mealtimes was consistently provided for patients. They were asked to reflect on the first set of workshops remembering what excellent nutritional care would look like, and the claims, concerns and issues exercise to help them make decisions about what they would like their ideal mealtime process to look like. This generated a huge amount of discussion where ideas were raised and debated and consideration given as to the practicality of ideas in every day practice. At the end of the workshop, three ideal processes had been developed for each of the mealtimes. Following the workshop, the ward sister developed a step by step guide to each of the new processes. This was displayed in the ward office, for all staff to agree and familiarise themselves with prior to ‘going live’ with the new processes at meal times. Key changes to the mealtime process, and other activities that needed to occur at this time, are detailed below:

<table>
<thead>
<tr>
<th>Key changes to meal time processes</th>
<th>Mealtime practices prior to the changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast</strong></td>
<td></td>
</tr>
<tr>
<td>• nurses to come out of handover, enter bays and ensure all patients are prepared for breakfast (positioned appropriately, tables cleared etc.)</td>
<td>• nurses come out of handover, started medication rounds and provided personal care to patients</td>
</tr>
<tr>
<td>• nurse in charge to provide FSA with a communication sheet, which highlights patient nutritional needs (e.g. special diet, red tray etc.)</td>
<td>• no formalised system to hand over nutritional requirements to FSA</td>
</tr>
<tr>
<td>• breakfast to begin at 07.45</td>
<td>• FSA starts the day by changing water jugs, setting up for breakfast and making toast for all patients</td>
</tr>
<tr>
<td>• patients to be offered cereals and a hot beverage first by FSA</td>
<td>• breakfast starts at 08.15 at the earliest</td>
</tr>
<tr>
<td>• FSA then will make toast and serve next</td>
<td>• cereal, toast and beverages all served at the same time (resulting in very cold toast being served to patients)</td>
</tr>
<tr>
<td>• nurses to be present in their bays at the start of service to provide assistance, encouragement and monitor intakes etc.</td>
<td>• nurse focus not on the meal time</td>
</tr>
<tr>
<td>• personal care for patients to commence after breakfast service</td>
<td></td>
</tr>
<tr>
<td>• medication rounds to commence after breakfast service</td>
<td></td>
</tr>
</tbody>
</table>
### Key changes to meal time processes

<table>
<thead>
<tr>
<th>Lunch and Supper</th>
</tr>
</thead>
<tbody>
<tr>
<td>• FSA to ring bell as trolley arrives on the ward. This will alert nurses the meal service will soon commence and they can ensure that patients are prepared ready for their meal</td>
</tr>
<tr>
<td>• FSA to ring bell at the start of service to alert all staff the mealtime is now underway and that this time should be ‘protected’</td>
</tr>
<tr>
<td>• Nurses to be present in their bays at the start of service to provide assistance, encouragement and monitor intakes etc.</td>
</tr>
<tr>
<td>• Medication rounds to commence after meal service</td>
</tr>
</tbody>
</table>

### Mealtime practices prior to the changes

- Nurses not always aware that meal service was imminent
- Patients not consistently prepared for meals
- Nurses focusing on other activities (e.g. writing notes, phone calls, medication rounds)

During the first week of the implementation of the new mealtime process the project team attended the ward daily to offer support and help with any issues that arose from this.

There were some initial issues that needed further consideration and to be managed during the first few days. These included:

- Changing the time that the porridge was delivered to the ward so it was available at 7.45am
- Whether a hot beverage should be served with the cereal round, the toast round, or at both rounds. It was decided to continue serving a beverage with the cereals round, so patients didn’t have to wait for a drink, and if they wanted a second drink with toast, they could request this
- Whether the mealtime process could consistently be adhered to during periods of short staffing or when there were very dependant patients
- Nursing staff expressed concern that patients’ personal care wasn’t completed until nearly lunchtime, but the ward sister was clear with them that this wasn’t a problem and they should continue as planned
- During the launch week, the usual FSA was on annual leave, but the relief FSA took the changes on board and was very helpful. She also made suggestions including ordering plate covers to keep the toast warm, and a second set of water jugs, so a direct swap of water jugs could be made, ensuring that patients were never without water. All of this however, did result in the usual FSA feeling a little excluded from the project on her return
- The bell not being always being rung by the FSA staff, as some FSA staff were unhappy to do this
- Initially nursing staff were waiting until the end of meal service before starting the medication round, but it was clear that as long as patients were prepared for meals, had the assistance they required and were being monitored, that the medication round could commence during the meal service
- Whilst nursing staff were present in bays it took them a few days to begin to really engage with patients about their mealtimes, but this did start to happen as the changes became embedded
- Paperwork was still being completed during the meal service but as with the medication rounds above, it wasn’t felt to negatively impact on the nutritional care as long as all of the patients’ needs were addressed, and the paperwork was being completed in the bays with the patients, not in the nurses office
Over the following weeks the ward continued with the new processes and the project team provided support as and when required.

Stage 3: Final data collection
Approximately three months after the commencement of the new mealtime processes, the project team repeated the audits that were initially carried out to identify where improvements in practice had been made.

a) The screening of patients for their nutritional risk using MUST.
During the period of the study, changes were made to the trust-wide MUST screening documentation, which meant that the MUST audit form needed to be adapted slightly. These changes were made to the form, and an audit was again carried out for every patient on the ward, on one particular day. Support for the audit was again provided by the department of dietetics, who provided the time of two dietetic assistants to collect this data for the project team.

b) The provision of nutritional care at mealtimes.
A total of six mealtimes were observed (two breakfasts, lunches and suppers), using the same audit form as in the initial data collection.

c) The attitudes of nursing staff around the importance of nutritional care and how confident they are in consistently providing this.
Eighteen members of staff completed the identical questionnaire as used in the initial data collection.

d) Assessment of the agreed standard that ‘nurses know what their patients mealtime requirements are, what their patients have eaten and how this is working towards their MUST care plan.
An identical audit form was used for this re audit. A total of nine registered nurses were asked about two patients each to ascertain whether their knowledge and documentation of nutritional care met the standard.

e) Review of existing information.
Since the initial data collection, the Essence of Care Food and Drink benchmark was rescored and as part of a trust-wide initiative, nutrition metrics are now measured monthly and displayed on the nursing and midwifery dashboard.

Results
In this section the findings of the data collection from stage 1 of the project will be compared to stage 3, which followed the facilitated changes in practice.

a) The screening of patients for their nutritional risk using MUST.
The MUST documentation of all the patients on the ward was audited before and after stage 2. The level, accuracy and timeliness of completion before and after stage 2 was generally good (see Graph 1 and Table1). Following stage 2 there was an improvement in the number of patients with nutritional care plans and more patients had food record charts completed when needed.
Graph 1: Summary of results from MUST audit

Table 1: Summary of results from MUST audit

<table>
<thead>
<tr>
<th></th>
<th>Pre-facilitation</th>
<th>Post-facilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients identified as requiring food chart</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Number of patients with completed food chart</td>
<td>2</td>
<td>14</td>
</tr>
</tbody>
</table>

b) The provision of nutritional care at mealtimes.

The project team observed a total of five mealtimes before stage 2 and six mealtimes following. Following the facilitation period in stage 2, mealtimes tended to be more organised, with less non-essential activity occurring with the FSA receiving a handover regarding the patients’ dietary requirements. This is summarised in Table 2.

Table 2: Summary of organisation of mealtimes pre and post stage 2 facilitation

<table>
<thead>
<tr>
<th></th>
<th>Pre-stage 2 facilitation</th>
<th>Post-stage 2 facilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of meals observed</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Number of times FSA received handover</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Number of mealtimes where other non-essential activity occurred</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Number of mealtimes that were well organised</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Number of mealtimes that were partially well organised</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

The preparation of the patients prior to mealtimes had improved following the stage 2 facilitation, with bed tables being cleared and patients positioned correctly (see Table 3).
Although more patients were identified by the nurses as requiring red trays post stage 2 facilitation, these were not observed as being used, possibly as meal trays are not used for any patients, on this ward. Following the project this is now being addressed.

Table 3: Summary of preparation of patients, pre and post stage 2 facilitation

<table>
<thead>
<tr>
<th></th>
<th>Pre-stage 2 facilitation</th>
<th>Post-stage 2 facilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of patients observed eating</td>
<td>121</td>
<td>156</td>
</tr>
<tr>
<td>Number of patients who had clear tables prior to meal service</td>
<td>62 (51%)</td>
<td>144 (92%)</td>
</tr>
<tr>
<td>Number of patients who were positioned correctly prior to meal service</td>
<td>104 (86%)</td>
<td>141 (94%)</td>
</tr>
<tr>
<td>Number of patients identified by nurses as requiring red tray</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Number of red trays in use</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Observing interaction between staff members and the patients.
At each mealtime, the project team observed all interactions that occurred between staff members and the patients, regarding their meal. As a minimum, the project team expected to observe an interaction with every patient, which could have been something as simple as a staff member checking with the patient that the meal was suitable. Following the stage 2 facilitation more interactions with patients occurred and of these, a greater number were with registered nurses. The pie charts below depict the percentage of patients who received such an interaction, by each staff group, and the percentage of patients who received no such interaction.
Observing if patients were encouraged to eat at meal times
At each meal time the project team observed the number of patients who needed encouragement to eat their meal. Following the stage 2 facilitation more encouragement was given by registered nurses. Charts 3 & 4, below, depict the percentage of patients who received encouragement, by each staff group, and the percentage of patients who received no encouragement.

Pie Charts 3 & 4: Summary of which staff groups provided encouragement
Observing who provided general assistance at meal times
In the pre stage 2 facilitation observations, a total of 15 patients were observed as requiring assistance to eat (for example, help to open packets, cut food up). In the post stage 2 facilitation observations, there were 18. In the post facilitation observations, all patients who required such help received it and more nurses, both registered and non-registered were involved in providing this care. Graph 2 shows who provided this care and where care was not performed.

Graph 2: Summary of which staff provided general assistance at meal times

Observing who helped those patients who required physical assistance
In the pre stage 2 facilitation observations, a total of nine patients were observed as requiring physical assistance. In the post stage 2 facilitation observations, there were eight. Following the stage 2 facilitation, observations showed that RNs were more involved in providing physical assistance for patients. Graph 3 shows who provided this care and where care was not performed.
Graph 3: Summary of which staff provided care to the patients who were identified as requiring physical assistance.

A total of eighteen nurses (registered and non-registered) completed the questionnaire both pre and post stage 2. Questions relating to the use of MUST were only answered by registered nurses, hence there were some missing answers. Following the stage 2 facilitation, nurses were more likely to strongly agree that actions required from the MUST screening were performed, and that they should be, and were, involved in the mealtime care of patients. Graphs 4-12 summarise these findings.

c) The attitudes of nursing staff around the importance of nutritional care and how confident they are in consistently providing this.
Graph 6: I always complete all parts of the MUST tool accurately

Graph 7: I am confident in completing the MUST tool

Graph 8: I am confident that I know how much food a patient needs to eat
Graph 9: I am confident that I know when to be concerned about how much a patient is eating

Graph 10: Registered Nurses should be involved in mealtime care of the patients

Graph 11: Non Registered nurses should be involved with mealtime care of patients
d) **Assessment of the agreed standard that nurses know what their patients mealtime requirements are, what their patients have eaten and how this is working towards their MUST care plan.**

Following the stage 2 facilitation, there was greater consistency between nurses verbal reporting of the patient’s nutritional risk/care needs and the care that was documented. This is summarised in the table below.

**Table 4: Summary of the consistency between nurses’ knowledge of their patients’ needs and care documented**

<table>
<thead>
<tr>
<th></th>
<th>Pre-stage 2 facilitation</th>
<th>Post-stage 2 facilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of patients reviewed</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>No. of fully completed MUST assessments</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>No of occasions where nurses verbal reporting of MUST score/ patients nutrition risk was reflected by the documented MUST score</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>No. of patients with nutritional care plan</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>No. of occasions where nurses verbal reporting of patients dietary needs reflected what was documented in care plan</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>No. of occasions where nurses verbal reporting of levels of physical help with eating reflected what was documented in care plan</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>No. of occasions where nurses verbal reporting of patients need for a red tray reflected what was documented in care plan</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>
e) Review of existing information

Benchmark Results
As part of the Trust’s Essence of Care benchmarking programme, wards are required to score the food and drink benchmark at predetermined times. Each benchmark comprises of a number of indicators of best practice, which are reviewed prior to each scoring period to ensure they are still current. The number of indicators of best practice achieved determine the ward’s overall score (red/amber/green/gold). Some of the indicators are ‘weighted’ and have to be achieved in order to achieve a green or gold score. The table below shows foods and drink benchmark results for the ward since scoring began. Following the facilitation the overall score had increase from amber to green.

Table 5: Summary of Essence of Care Benchmark Results

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Overall Result</th>
<th>Number of Indicators achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2009</td>
<td>Amber</td>
<td>8/14</td>
</tr>
<tr>
<td>Oct 2009</td>
<td>Amber</td>
<td>10/14</td>
</tr>
<tr>
<td>May 2010</td>
<td>Amber</td>
<td>10/16</td>
</tr>
<tr>
<td>Jan/Feb 2011</td>
<td>Amber</td>
<td>14/18</td>
</tr>
<tr>
<td>July/Aug 2011</td>
<td>Green</td>
<td>14/18</td>
</tr>
</tbody>
</table>

Nursing Metric Results
Since April 2011 nursing processes relating to fundamental aspects of care are measured monthly by an external senior nurse and displayed on a nursing dashboard. Nutritional care is one such metric and includes a review of MUST documentation and the use of care plan for example. The scores are aggregated to provide an overall percentage score for the nutrition metric. These are summarised in the graph below, for both the ward and the Trust score.

Graph 13: Showing a comparison of ward and trust- wide metrics

Discussion
The results show that there has been a demonstrable improvement in the nutritional care received by patients on this ward. After the stage 2 facilitation period both registered and non registered nurses demonstrated from their responses to the questionnaire, and in their observed actions, that they were more engaged in the provision of nutritional care.

In the questionnaires at the end of the stage 2 period, there was a large increase in the number of nurses telling the project team that they strongly agreed that both registered and non registered nurses should be and are involved in the mealtime process. They also told
the project team that they strongly agreed that they are confident in knowing when to be concerned about what a patient is eating. This was an interesting finding as the project didn’t contain any formalised training on this, but occurred as a by-product of the project.

The changes in the attitude of nurses shown through the results of the questionnaire were supported by their actions, which were seen in the observational audit. During the observations, the project team saw a much larger number of interactions of registered nurses, in particular, talking with patients about their meals, offering encouragement, providing assistance to patients who required it. However, there were cases where the project team observed some patients receiving no interaction, and in general these tended to be the patients who were identified as not being at risk, with the focus of nutritional care being on those patients with identified nutrition issues. There was also an observed variation between nurses engagement in the meal service, with some nurses ensuring that every patient in their bay was checked to ensure they had the care they needed, whilst other nurses focussed only on patients with identified risk. Nurses have raised concerns that during periods of short staffing they may not be able to provide the level of care they would like to. The project team plan to work with the ward team to agree how they can work differently when they are short staffed. However the project team have observed that during such periods nurses were still demonstrating a raised awareness of nutritional care and how they can provide it, which is an improvement on practices pre stage 2 facilitation.

After stage 2, patients were better prepared for their meals prior to the meal service, and nurses were focussed on preparing patients for breakfast directly after morning handover, which was a big change in the way duties were organised in the morning. Overall the project team felt that the mealtimes were well organised after stage 2.

Communication between the nurses and the FSA improved in relation to the meal requirements of patients, by the use of a written handover sheet. However, the FSA felt that the written sheet was sometimes used as a substitute for verbal communication, which had a detrimental effect on her sense of feeling part of the ward team. This was recognised by the nursing staff and steps taken to address this. The regular FSA chose not to ring the bell at mealtimes to alert nurses that the meal service was about to begin, although many of the relief FSAs did. Whilst the FSA was involved in the time out and facilitation process, the project team felt that they found it difficult to engage with the project and in hindsight feel that they should have held some extra sessions with the regular and relief FSA staff to allow them to express more openly how they felt about the changes. This is a lesson to take forward to the next stage of the project.

Overall MUST practices improved as a result of the project. It is felt by the project team that this was largely due to the training provided to nurses by the nutrition link nurse who was really engaged in the process. MUST practices in terms of patients having a MUST score were good before the stage 2 facilitation, but post stage 2 facilitation there was particular improvement in the use of care plans and food record charts, and nurses knowledge of patients needs in relation to the MUST tool. Interestingly whilst MUST practices were good, they were a high number of missing responses in the post stage 2 nurse questionnaire around confidence in filling in the MUST tool and always completing the tool accurately. This may indicate that further training may be needed to improve levels of confidence.

The project team feel that the key to the success of this project was the engagement of the whole ward team. The ward sister was very skilled at ensuring that every member of ward staff had the chance to participate in each of the workshops and emphasised the importance of nutrition to provide high quality patient care. Without this the project team feel that the improvements in practice may not have been achieved.
The project team are mindful of the fact that they set out to carry out focus groups with patients to discuss their experiences in relation to nutritional care, but were advised against this by the patient partnership lead for the Trust, who suggested that the data that was already collected from patients could be used. Whilst it was clear from this data that patients were satisfied with the nutritional care that they received both before and after the stage 2 facilitation process, the project team feel that there may have been more information that could have been gleaned from patients about their experiences of mealtimes, particularly if patient stories had been undertaken.

Although many of the results were positive, it is felt by the project team that there are still further nutrition practices that could be improved upon. The project team felt that they could have been more visible on the ward between the period of changing the mealtimes and the second audits. The project team debated the balance between allowing the ward to take charge of their own practice development, whilst providing ongoing support, and they remain unsure as to whether they got this balance right. However, when the lessons are shared with the wider trust with a view to making the changes in all ward areas, the amount of support that each ward can receive will be limited, and the project team have therefore shown that it is possible to facilitate improvements in practice whilst not being on the ward constantly.

The greatest challenge for the ward now is to sustain the changes long term, and the project team would like to reaudit again in twelve months to see if the improvements in practice are still present. As mentioned above, there is still work to do with the ward in terms of development, ensuring that all staff continue to be engaged, especially with new staff that weren’t involved in the project. Further facilitation with the ward team is needed to develop a contingency plan, to consider minimum levels of care needed during periods where staff are caring for large numbers of very dependant patients and/or during periods of short staffing. Additionally, the ward needs support in order to introduce the use of red trays, which is a way of visually identifying who is at risk nutritionally.

**Conclusion**

The project aimed to provide a measurable improvement in the standard and consistency of patient’s nutritional care and experience on an acute respiratory ward by collecting information about current nutrition practice; engaging with the ward team to identify and facilitate improvements in practice; and then evaluating the effectiveness of the facilitated changes in practice by repeating the initial data collection processes.

The project team feel the project was an overall success as the evidence demonstrated that the ward staff showed an improved awareness towards nutritional care and improved care was observed. It is also felt that the methods and approaches used to facilitate changes have been effective in improving nutritional care practices.

The active engagement and support of the ward sister was key to success and this is a major consideration when considering facilitating changes in other areas.
References.


Appendix 1: MUST Audit Tool

**MUST Nursing Documentation Audit**

- **Survey Number**: 2895

**Q1.** Is the MUST tool completed in the risk assessment booklet (NUH015735)?

**Q2.** Has the MUST tool been completed within 24 hrs of admission?

**Q3.** Have the following been recorded:
   - a) Height?
   - b) Weight?
   - c) BMI?
   - d) Usual weight?

**Q4.** Has the MUST BMI score been correctly calculated and recorded?

**Q5.** Has the MUST weight loss score been correctly calculated and recorded?

**Q6.** Has the MUST Acute disease affect score been correctly calculated and recorded?

**Q7.** Has the final MUST score been correctly calculated and recorded?

**Q8.** Does the patient have an appropriate care plan initiated?

**Q9.** Has the care plan been individualised?

**Q10.** Has the MUST score been repeated weekly or if there has been a change in patients condition?

**Q11.** Is the MUST assessment signed by a trained nurse?

**Please answer the following questions for all patients that scored >=1**

**Q12.** Has the care plan been evaluated in the last 48 hrs?

**Q13.** Is the patient on a food record chart?

   - If yes, is the food chart completed?
     - Fully
     - Partial
     - Not at all

**Q14.** If the MUST score is 4 or over, has the patient been referred to dietitian?

**Q15.** If the patient scored below 4 but were referred to a dietitian is the reason for referral given?

**Q16.** If the patient was referred to the dietitian, how quickly was the patient reviewed by the dietitian (in hours)?
Appendix 2: Observation of Mealtime Audit Tool

Section 1 - Demographics
- Q1 - Ward
- Q2 - Date
- Q3 - Mealtime being observed: [ ] Breakfast [ ] Lunch [ ] Supper

Section 2 - To be completed with the Nurse In Charge
- Q4 - Total number of beds:
- Q5 - Total number of patients on the ward:
- Q6 - Number of patients eating:
- Q7 - Number of patients identified by MUST as needing a food tray:
- Q8 - How many patients were identified as requiring feeding:
- Q9 - How many nurses are on duty ( ) and how many should be on duty ( )? (enter number)
  a. Registered Nurses?
  b. Supernumary registered nurses?
  c. Non-registered?
  d. Nursing students?
  e. How many were Agency Nurses?

Section 3 - To be completed with the Ward Waitress
- Q10 - Has the ward waitress had a handover of mealtime requirements for patients?
  - [ ] Yes [ ] No
  - If no, please go to question 14

- Q11 - If YES, how was this done?
  - [ ] Verbally
  - [ ] Wipe board in the kitchen
  - [ ] Paper
  - [ ] Communication Book
  - [ ] Laminated Sheet
  - [ ] Other, please specify

- Q12 - If YES, who has provided this handover?
  - [ ] Registered Nurse
  - [ ] Non registered
  - [ ] Student nurse
  - [ ] Other, please specify

- Q13 - Did the handover include:
  a. Who requires a special diet?
  - [ ] Yes [ ] No
  b. Who requires a red tray?
  - [ ] Yes [ ] No
  c. Who requires feeding?
  - [ ] Yes [ ] No
  d. Who requires general assistance (e.g. opening packets etc.)?
  - [ ] Yes [ ] No
  e. Who requires encouragement?
  - [ ] Yes [ ] No
Section 4 - To be completed from observation of meal service

Q14 - Time that meal service starts: 
Q15 - Time that meal service ends: 

Q16 - During the mealtime, are other non-essential clinical activities occurring?  
   [ ] Yes  [ ] No
   If no, please go to question 16

Q17 - If YES, please indicate the number of activities occurring:
   a - Medication round: 
   b - Doctors’ ward rounds: 
   c - Handover between nurses: 
   d - Patient interrupted by member of nursing staff: 
   e - Patient interrupted by other staff member: 
   f - Nurses marking patients’ charts: 
   g - Nurses completing paperwork away from patient: 
   h - Nurses taking breaks: 
   i - Patients having blood taken by phlebotomy: 
   j - Escort came to take patient off ward: 

Q18 - Has the meal service been well organised?  
   [ ] Yes  [ ] No  [ ] Partially

Q19 - Throughout the meal service, has the environment been conducive to eating?  
   [ ] Yes  [ ] No  [ ] Partially

Q20 - If NO, please indicate why not?
   [ ] Inappropriate level of noise
   [ ] Unpleasant odours
   [ ] Busy / rushed atmosphere
   [ ] Ward area cluttered
   [ ] ComMODES in use
   [ ] Other, please specify: 

Please refer to the mealtime checklist to help complete questions 21-30

Q21 - Number of bed tables uncluttered and space for cutlery: 
Q22 - Number of patients positioned appropriately prior to meal service: 
Q23 - Number of red trays used:
<table>
<thead>
<tr>
<th></th>
<th>RN</th>
<th>NNR</th>
<th>FSA</th>
<th>SN</th>
<th>V</th>
<th>O</th>
<th>N/A</th>
<th>ND</th>
<th>NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q24</td>
<td>Number of meals taken by patient by each staff group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q25</td>
<td>Number of patients who have an interaction re: meal with the staff group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q26</td>
<td>Number of patients who received encouragement from each staff group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q27</td>
<td>Number of patients given assistance from each staff group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q28</td>
<td>Number of patients that received assistance from each staff group to feed:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q29</td>
<td>Number of patients where there was evidence of their intakes being assessed by each staff group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q30</td>
<td>Number of patients who had intake documented on food record chart by each staff group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q31 - Any other comments about the meal service?
Appendix 3: Nurse Questionnaire Tool

Q3 - Non-registered nurses should be involved with the mealtime care* of patients:

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree / disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

Q10 - I am involved in the mealtime care* of patients:

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree / disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

*By mealtime care we mean providing assistance and encouragement to patients ensuring they have correct meals, providing help, feeding if needed, monitoring intakes etc...

Any further comments?
Appendix 4: Testing the Standard Audit Form

Q1 - Date

Q2 - Ward

Choose patient at random and ask the nurse caring for that patient:

Q3 - Can the nurse identify:
   a) Diet the patient requires? □ Yes □ No □ Partial
   b) If the patient is nutritionally vulnerable (MUST score >= 1) or not? □ Yes □ No □ Partial
   c) Level of physical assistance the patient requires? □ Yes □ No □ Partial
   d) If the patient requires a red tray or not? □ Yes □ No □ Partial

Q4 - Can the nurse tell you what the patient ate for their last meal?

Review rules for this patient:

Q5 - Does the patient have a MUST tool completed? □ Yes □ No □ Partial
If NO, go to question 7:

Q6 - If "YES", or "PARTIALLY", does the MUST tool reflect what the nurse has told you in Question 3(b)? □ Yes □ No

Q7 - Does the patient have a care plan? □ Yes □ No
If NO, go to question 11 overleaf:

Q8 - Does it reflect what the nurse told you in question 3(a)? □ Yes □ No □ Partial

Q9 - Does it reflect what the nurse told you in question 3(c)? □ Yes □ No □ Partial

Q10 - Does it reflect what the nurse told you in question 3(d)? □ Yes □ No

Q11 - Please record any further comments in the box below: