Developing a magnetic sign system to ensure patients receive appropriate nutritional care

Good nutritional care is crucial to patient recovery. A trust produced a pictorial magnetic system to enable staff to easily identify nutritional needs.

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The Department of Health has acknowledged that at times patients are not receiving the correct nutritional care to support them to eat and drink.

Nutritional link nurses at Milton Keynes Hospital Foundation Trust developed a tool to ensure that all staff, patients and relatives were aware of patients’ current and correct nutritional status.

INTRODUCTION

Sufficient nutritional intake is one of the most basic needs, yet in 2007 the Department of Health acknowledged that at times patients are not receiving the correct nutritional care to support them to eat and drink. That same year, the Royal College of Nursing stated that food and water are essential elements of care – as vital as medication and other types of treatment.

As ward based nutritional link nurses, we believe our responsibility is to enable and help other nursing staff to provide a high standard of nutritional care in accordance with RCN principles for nutrition and hydration (RCN, 2007).

Approximately three million people are at risk of malnutrition in the UK (British Association for Parenteral and Enteral Nutrition, 2009). Evidence suggests that it remains a significant problem, with 13% of patients being undernourished on admission to hospital (Kelly et al, 2000).

Malnutrition can lead to increased complications, prolonged hospital stays, impaired quality of life and higher mortality rates, all of which have negative cost implications on the NHS (Wentzel-Persenius et al, 2008).

Malnutrition also affects immune response, wound healing and water and electrolyte balance leading to reduction in muscle bulk, which may increase the risk of falls and subsequent injury (Welch, 2008). Identifying malnourished patients who are in need of nutritional support improves the quality of treatment and leads to faster recovery and increased muscle strength (Pablo et al, 2003).

In May 2008, concerns were raised about practice within our trust, which resulted in a proposal to design and develop a pictorial magnetic signage system to identify and display all patients’ correct nutritional status from admission through to discharge.

BACKGROUND

Through observation and audit (Fig 1), systems in place on two wards in the hospital were proven to be ineffective because inaccurate information about patients’ nutritional status was being displayed.

Throughout the trust, different specialties had adopted their own systems to display nutritional status, varying from whiteboard signs to displays above the bed and – of most concern – no visible indication. This highlighted the need for a standardised approach to ensure that all staff, patients and relatives are aware of the current and correct nutritional status.

There were several reasons to change practice from a clinical perspective:

- To reduce the risk of patients being malnourished unnecessarily if nil by mouth is wrongly displayed. These patients would not be offered meals or drinks when there was no clinical reason to starve them;
- To reduce the potential for patients to be fed before a booked procedure requiring them to have fasted. Cancellation of any procedure wastes resources (Box 1) and increases the length of hospital stay;
- To diminish the risk of aspiration where it has been identified that a patient cannot tolerate standard meals or drinks safely;
- To reduce the number of days that patients are kept nil by mouth without consideration of alternative methods of meeting their nutritional needs. The display is a visual prompt for the medical or surgical team to review status on a regular basis;
- To enhance quality and accuracy of handover information;
- To help identify patients needing help to meet their nutritional needs;
- To improve staff participation and accountability in identifying and displaying correct nutritional status;
- To ensure that what patients receive meets their needs and that they are fully aware of any restrictions in place.

CHANGE IMPLEMENTATION

Change in healthcare is complex, and implementing change successfully involves considering all aspects of the organisation and support through strong leadership, teamwork, good communication and shared...
beliefs. The change process for this project identified several stages.

After an initial audit demonstrated the need to transform practice, we decided to introduce a magnetic sign system to display individual patients’ nutritional status.

We then had to decide how many categories were needed to display accurate nutritional status and to design the magnets accordingly.

We presented our proposal to the matron and agreed the initial funding and pilot length. Magnets and posters for the pilot were produced and we provided leaflets to all staff on both wards and nominated champions to support the project.

It was important to gain support from different specialties and to promote the project at nutritional meetings.

A launch date for the pilot was agreed with ward managers and practice was audited during the two week pilot, after which a blind audit was carried out.

After the pilot, the multidisciplinary team was encouraged to give feedback, which was used to inform the design of new magnets and to improve the presentation of all magnets.

After the official trustwide launch, the scheme was continuously evaluated and a post launch audit was arranged to measure sustainability.

THE MAGNETIC SIGNAGE SYSTEM

The magnets were designed to be displayed in a prominent position on metal bedside lockers where they could be easily changed and cleaned and were visible to patients, relatives and members of the multidisciplinary team. The way the signage was developed incorporated various nutritional status instructions.

We decided to adopt a pictorial system using with wording below the picture to enable easy visual identification for those whose first language was not English (see Fig 2, overleaf).

The pictures illustrate to patients and relatives exactly what is allowed. It is the accountable nurse’s responsibility to ensure the signage is accurate, up to date and changed according to the patient’s needs.

Initially, 10 magnets were developed, addressing the main aspects of safe nutritional care. We decided the magnets should be rectangular and approximately A6 in size to differentiate them from circular magnetic infection control indicators already in use. The 10 designs were piloted on both wards with an initial two week audit followed by a blind audit for a further two weeks (Fig 1).

After the successful pilot, we reviewed the feedback from the multidisciplinary team, patients and relatives (Box 2). This gave us the opportunity to identify additional designs and make changes to existing magnets. Since the trust was developing a pictorial menu for patients, we decided to use some of these pictures on the magnets to ensure a standardised approach (Fig 2).

The number of magnets was increased to 17 to incorporate fluid and hydration management, specific dietary requirements and medical needs prior to eating, such as whether a patient needed insulin.

Patients’ needs are identified on admission and appropriate magnets are placed on their lockers to assist with individual nursing requirements. Typically, two or three signs are needed to denote a patient’s nutritional requirements and status.

POST PILOT DEVELOPMENT

Before the system was launched across the trust, we presented it to matrons, ward managers and consultants, adopting a top down approach.

The bottom up approach was achieved by empowering domestic staff, housekeepers, volunteers and nursing staff during the training period.

We also displayed our system at the patient safety conference, where verbal feedback was both positive and encouraging.

BOX 2. FEEDBACK ON THE SYSTEM

“…patients are getting the correct type of diet and are useful in identifying who needs assistance and monitoring of food and drink intake helping to prevent and treat malnutrition.”

Dietitian

“I have been very impressed with the introduction of the magnetic dietary requirement notices used on the GI unit. This is an excellent idea, easy to use and highlights very well the vital importance of nutritional requirements.

“I would like to see this rolled out as I am sure it will have significant benefits to patients on every ward in the hospital.”

Registrar – medicine

“I was pleased you brought your trial of the magnetic nutritional status signage to the surgical directorate meeting. They have contributed to patient care in an efficient and simple manner.

“Correct nutritional management is key to patient recovery and, as nutrition in hospitals is a key target on the government’s agenda, you are ensuring that the hospital is doing all it can to comply with meeting these targets.

“Well done – you have improved patient care in your area and I hope the hospital recognises your achievement and uses it across the trust.”

Stoma care sister

“The nutritional magnets are simple, yet effective. Nutritional status can change very quickly before and after a procedure and the signs ensure errors are kept to a minimum.

“All wards would benefit from the system.”

Student nurse

“The signage has made it easier to give meals to patients and I know who needs help with feeding. I am not constantly asking already busy staff who can eat and drink. Very helpful.”

Volunteer staff

“What a fantastic method of displaying patient dietary requirements. My husband was admitted to a ward that did not use this facility and was frequently offered a hot drink and meal despite not being well enough to eat or drink. Fortunately, he was able to decline but the effects would have been disastrous had he accepted.

“The signage should be used across the hospital to ensure patients are only given food and drink as directed by the doctors, and to make the lives of nurses and HCAs a little easier.”

Patient’s relative

“I think the system works well but some of the images on the signage need to show food that looks a little more appetising.”

Healthcare assistant

FIG 1. % OF PATIENTS WITH CORRECT NUTRITIONAL STATUS ON THE GI UNIT

<table>
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<th>Number of audit days</th>
<th>Pre Trial</th>
<th>Start Trial</th>
<th>End Trial</th>
</tr>
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<tr>
<td>1-2</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
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<td>3-4</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>5-6</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
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<td>20%</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>9-10</td>
<td>10%</td>
<td>20%</td>
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Al Grant

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From pilot to launch, the magnetic signage system was promoted across the hospital site through the monthly nutritional link nurse meetings, and the project was championed at ward level by those attending these meetings. How well people understood the signage was discussed and tested at various levels, both within and outside the trust, and feedback was considered when designing our final images.

Once funding had been agreed, we ordered the magnets and obtained storage cabinets suitable for all areas. Initial cost of set up depended on volumes and it was agreed to supply one magnet of each image for every bed within the trust to reduce ongoing costs. Magnets were purchased in bulk to minimise the unit price and overall cost, and one storage cabinet was supplied to each area.

To support the change, the project team designed a poster and leaflet to be used as promotional and training aids. All staff likely to deal with patient nutritional needs were given the opportunity to attend drop in sessions, ward based training and one to one training. The communications department supported the launch with messages via the hospital intranet.

Labelled storage drawers containing one of each type of magnet for each bed were delivered to each area, with leaflets and posters supporting the new system.

Responsibility for project success was reinforced at matron or ward manager level.

Link to Productive Ward Initiative
During implementation, the project was presented at strategic health authority meetings to fellow professionals, where the magnet system was well received as part of the Productive Ward initiative. Funding for the trustwide launch was provided from Productive Ward funds.

The Productive Wards meals module “offers guidance on how to ensure the best experience for patients while making meal delivery quick and easy for staff” (NHS Institute for Innovation and Improvement, 2009). This results in less wasted time and gives staff time to make sure patients receive the correct nutritional assessment and to help those who are unable to feed themselves.

Our new system helps to fulfil this element of the Productive Ward module. It also links well to other elements of the Productive Ward, including nursing procedures, ward rounds, shift handovers and Patient Status at a Glance.

Conclusion
According to healthcare regulator the Care Quality Commission (2010): “A person using services receives evidence based care that is appropriate to their need and delivered by the right person, with the right skills and expertise, in the right place, at the right time.”

Use of the nutritional signage fulfils this statement and aims to ultimately improve patient care across the trust.

References