London Procurement Partnership

Audit of prescribing of nutritional Borderline substances at discharge

Final report

Medicines Optimisation and Pharmacy Procurement Workstream

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Executive summary

There is a lack of data on acute hospital prescribing of nutritional borderline substances (NBS) at discharge. Additionally, there are systemic issues in nutritional prescribing:

1. Nutritional products are borderline substances and therefore are not subject to the same governance and supervision arrangements as medicines.
2. The procurement model is challenging (products are almost free to hospitals where prices are subsidised by profits made in primary care).
3. The dietetic profession has influence on prescribing of NBS, but capacity and responsibilities for supporting prescribing choices vary and this means that accountability is not always clear.

We audited prescribing choices and communication by profession but were unable to provide quantitative data on the volume of prescribing at discharge. Data from the six hospitals that participated showed that dietitians are consistent in the typical number of products and doses recommended. Two hospitals demonstrated dietetic utilisation of both a wider choice of products in terms of non-contract alternatives and of cost effective formulations (for example powdered supplements), potentially reflecting greater insight into the impact of their choices on the whole healthcare economy. Dietitians provide more information at discharge than non-specialists but there is room for improvement. This audit identified high rates of non-dietetic nutritional prescribing, which alongside product choices of low cost effectiveness and the lack of communication at discharge, is of concern. The scope of electronic patient recording and prescribing systems to improve the information available across the care boundary is largely untested.

This audit report provides an opportunity to discuss some of the issues and consider strategies to address them.

Background

The NHS London Procurement Partnership (LPP) has reported on the information transferred from acute care to primary care for ongoing prescription of nutritional items (1). This audit of 60 patients from 10 General Practices highlighted concerns with the adequacy of information. The model of procurement for nutritional supplies is complex, with penny (or zero) pricing of products in the acute sector offset by the cost of FP10 prescriptions in community. In 2017 the Commercial Medicines Unit (CMU) published guidance stipulating that product choice in the acute sector, which is contract driven, should not influence product choice in community (2). However the extent to which this guidance is followed is unclear. The LPP report included information about best practice when recommending that nutrition is prescribed by a GP (1). More recently a standardised prescription request letter has been developed by the dietitians at Guys and St Thomas's to improve practices in prescribing of nutrition, both in terms of ensuring the right product and volume is obtained by the patient and ensuring continuity of the nutrition care plan into the community (3).

Prescribing accountability and value

Traditionally many GPs have accepted dietetic prescribing recommendations and there has been little pressure to justify care plans or product choices. However, with budgets under ever increasing pressure and the drive towards accountability in healthcare, this is no longer the case. Appropriate prescribing has been described as 'prescribing that was indicated, necessary, evidence based (using a broad meaning of 'evidence') and of acceptable cost and risk-benefit ratio' (4) and is defined as 'the outcome of the process of decision-making that maximises net individual health gains within the society's available resources' (5). Thus even though there may be a clinical need, prescribing cannot be considered appropriate in the absence of other relevant, objective information, The LPP report (1) studied the information available and based on this, identified inappropriate prescribing.

As dietitians cannot prescribe (unless they have taken a course to train as supplementary prescribers) the majority of the profession has not received formal training which specifically equips them to make prescribing recommendations or to scrutinise the prescribing of others. Dietitians do not have independent prescribing rights. GPs and other independent prescribers are less likely to understand the nutritional products they prescribe. In addition to the prescribing status of dietitians, the variability between hospitals in dietetic authorisation to administer on medicine charts may also contribute to reduced accountability. With increasing implementation of electronic prescribing systems the availability of data on prescribing choices will increase. It is unclear how the increasing availability of data from electronic prescribing systems will benefit nutritional prescribing unless nutritional products are included and whilst dietitians do not have autonomous authority to authorise administration. The variability of costs of nutritional prescribing by FY1 doctors using electronic prescribing systems has been demonstrated (6), but there are a number of barriers to monitoring NBS.

There has been an increasing focus on the financial impact of product choices, but this has limitations. There is a need to:

1) Identify and treat malnutrition;
2) Recognise over-identification of malnutrition (inappropriate issuing of NBS in low risk patients without objective outcome measures and potentially excessive length of prescription); and
3) Manage both risks simultaneously

This will ensure that there is appropriate use of resources and that money spent on nutritional care adds value to patient care.

The British Association for Parental and Enteral Nutrition (BAPEN) has published a tool and dashboard to measure the quality of nutritional care: screening, effectiveness of nutritional care and patient experience (7). For those that participate in submitting data to BAPEN it will undoubtedly enrich the understanding of how Care Quality Commission (CQC) standard 14 (8) is being met, but does rely on local motivation and capacity. The BAPEN nutrition care dashboard measures one aspect of utilisation value by improving rates of identification and treatment of malnutrition in vulnerable populations. There is currently no method of measuring over identification at discharge. A lack of knowledge and capacity to ensure optimisation of nutritional care at discharge is likely to be a significant driver of poor continuing prescribing of NBS. A literature search on prescribing of nutritional products at discharge was requested, using a variety of search terms, however, no articles studying this issue were identified.

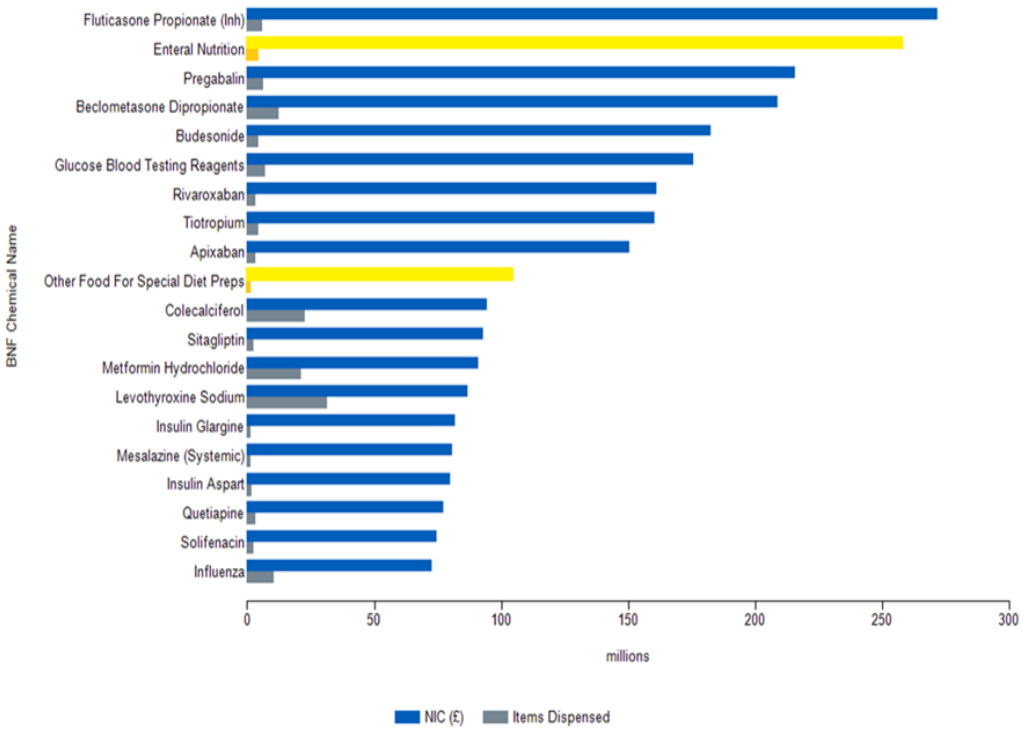
Rao (9) describes the paradox of thrift with regard to nutritional prescribing, that focusing solely on the costs of nutritional support does not take into account that the cost of managing malnourished individuals is more than double that for non-malnourished individuals (9). In general, people with malnutrition have higher healthcare utilisation costs which includes higher hospital admission and readmission rates, longer length of stay in hospitals, increased use of antibiotics and more GP visits compared with the well-nourished (10). However, there is a lack of accessible data on all aspects of malnutrition: identification, length of treatment, functional measures and healthcare utilisation.

The general public and healthcare professionals may assume that if a nutritional product has been prescribed, a dietitian has assessed the patient and recommended the product. However, due to lack of dietetic capacity, the volume of patients and the greater autonomy of other HCPs, this is often not the case. Additionally it can be argued that for managing low level malnutrition there is no indication for individualised nutritional care planning, as a majority of acutely unwell patients may experience decreased appetite preceding and during admission, and all hospitals have a duty of care to manage this risk at a hospital rather than individual level. All patients should be screened for malnutrition on admission and during the hospital stay. Those with a low or medium risk are least likely to be referred to dietetics. Management guidelines (11) encourage careful monitoring and to improve and increase overall nutritional intake. “Food first” approaches to this vary and are highly dependent on the quality of catering and capacity of staff to support patients with eating meals and snacks. Oral nutritional support (ONS) products are highly convenient and can potentially be offered as alternatives to food. There is no cost pressure on the acute trust if ONS is used in this way, because nutrition supply contracts provide ONS products at penny or zero pricing. Strong leadership (e.g. via nutrition steering committees) is needed to ensure that patient nutritional needs are met appropriately. The National Dementia Audit (2017) recommends that all new catering contracts specify access to finger foods and snacks 24 hours a day (12). The author also comments on the need for families to help feed relatives to relieve pressure on professional staff around mealtimes. This is controversial, but does highlight the complex challenge of meeting the nutritional needs of an increasingly complex and ageing population.

Data on nutritional prescribing

NHS Digital produces annual analysis of the cost of prescriptions dispensed in the community and the number of items dispensed. The net ingredient cost (NIC) describes the basic drug tariff price (excluding VAT) and is used as a measure for comparison, as there are a number of other variable factors affecting actual cost paid. The analysis is based on British National Formulary (BNF) therapeutic groupings using the classification system prior to BNF 70. The data shows that nutritional items represent the 2nd (enteral nutrition) and 10th (other food for special diet preps) highest NIC in primary care (13), see Graph 1.

Graph 1. Net Ingredient Cost (NIC) and Items for the Top 20 Chemicals by NIC, 2017

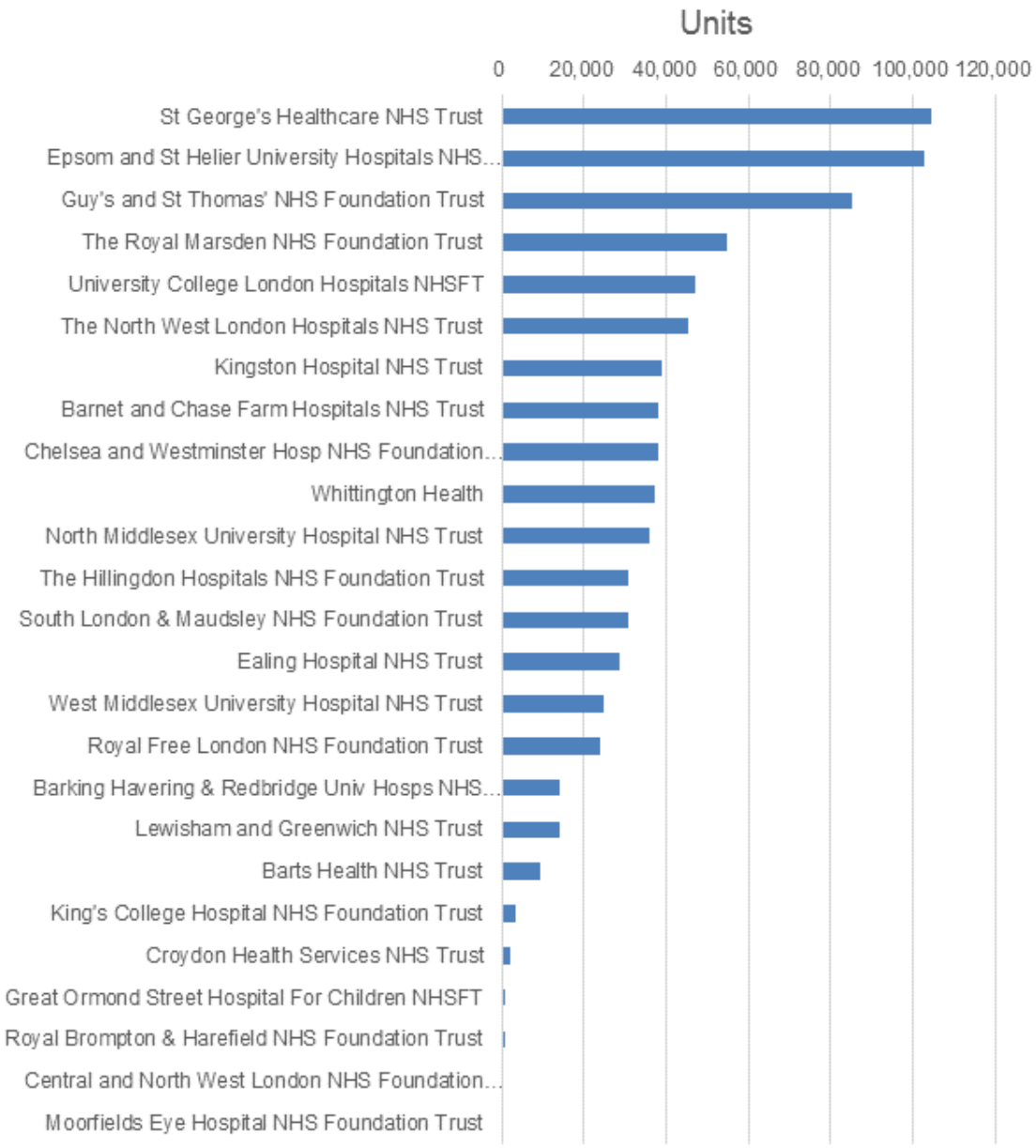


Costs and usage of adult ONS are monitored at CCG level and for London CCGs by LPP. Local approaches to improve quality of prescribing and cost control include:

1) Monitoring the ratio of powder to liquid ONS product usage in adults: target of 80% powder.
2) A 'Dietitian only rule': all ONS recommendations to prescribe on discharge from the acute hospital must be endorsed by a dietitian.

Data on nutritional prescribing in the acute sector is demonstrated in Graph 2, showing a number of trusts do not have any pharmacy level data on nutritional products because products are ordered and distributed by dietetics, supplies or catering staff.

Graph 2. IMS hospital dispensing data (Anatomical Therapeutic Chemical classification system (ATC) Y10 Oral Nutrition units) by trust April 2017 – March 2018



Only in hospitals where nutritional products are managed by pharmacy staff is there readily available and comparable data on product use. However, the number of beds and recorded number of oral nutrition units issued do not necessarily correspond. In the period concerned, Epsom and St Helier Trust, where all nutritional products go through pharmacy, apparently issued the second highest number of units, but usage is disproportionate to the number of beds in comparison to a larger hospital trust in which NBS are provided to patients via non-pharmacy routes. Note this data does not correlate to hospitals with the highest usage, as IMS data represents one route of ordering and supply.

The LPP Nutrition Task and Finish Group considered that the existing data sets were inadequate, and that an audit was required. A small working group designed and piloted the audit tool. Due to the significant variation in the systems for prescribing or authorising product issue and route of supply in different hospitals, several models for case identification processes and two standard operational procedures for the audit process were needed. The barriers to convenience sampling and ensuring that data is representative are discussed further in the results.

Audit aim

To use a standardised tool to assess the quality and quantity of prescribing at discharge and obtain baseline data on prescribing (or requests to others to prescribe) of NBS at discharge (or transfer of care) from acute hospitals. The data will enable a greater understanding of best practice across the care pathway, and should inform both local practice and the strategy for London.

Audit objective

1) To obtain data on the quality of prescribing at discharge (or transfer of care).
2) To obtain quantitative data on the volume of prescribing at discharge (or transfer of care).

Method

Due to the variety of routes by which NBS may be prescribed, requested or issued (e.g. via medicine chart, dietetic system, catering system or ward stock) the method to identify cases varied. At hospitals in which dispensing data was available, the setup of the system may enable a search for a broad category or by product. A search for all NBS (appendix 2 of the BNF) will yield significantly greater data, compared with transaction reports for individual items (by BNF code, or item and by flavour). As interrogating the data was beyond the scope of the audit, this was not specified and methodology and sampling was variable. At hospitals with no dispensing data available, alternative methods of identifying cases were needed and convenience sampling is not possible. This may vary from hospital to hospital and between different patient groups e.g. adults, paediatrics, neonates. The audit of prescribing practice was designed regardless of demographic or clinical specialty products. As a result of the variety of information sources and systems for case identification, two standard operational procedures were developed alongside a standardised tool for data collection. Nutritionally equivalent products were grouped into categories to enable ease of data collection. Each hospital was asked to audit a minimum of 20 patients. An education session on audit methodology was held to support trusts undertaking the audit and improve consistency.

Note that Inherited Metabolic Disorder (IMD) products and enteral feeds are out of the scope of this audit. See appendix one for further information on the audit protocol, including inclusion and exclusion criteria, product categories.

Results

Summative data and assessment by healthcare professional

Data on the hospitals, patients, products and healthcare professional involvement is summarised in table 1.

Table 1. Summative data on hospitals and patients audited

224 Patients receiving NBS	adults			218
	paediatric			6
6 hospitals		Dietitian assessed	Other HCP assessed	
	Hospital A	87% (n 80)	13% (n 12)	92
	Hospital B	34% (n 16)	66% (n 31)	47
	Hospital C	65% (n 26)	35% (n 14)	40
	Hospital D	95% (n 19)	5% (n 1)	20
	Hospital E	92% (n 12)	8% (n 1)	13
	Hospital F	58% (n 7)	42% (n 5)	12

Sample size

Two hospitals submitted data for fewer than 20 patients (Hospitals E and F). Of note, it was reported that no pharmacy or discharge notification data was readily available for hospital 'F'. Cases were therefore identified by searching manually. This highlights an important issue that because of the low cost of these products in acute care, their use is not perceived to justify significant supervision and monitoring. We excluded the data from these two hospitals from the initial analysis. Re-analysis using all data gave a very similar result so all data (n = 224) has been included for subsequent analysis. Hospital 'A' audited a large number of patients (92) in comparison to the others. Both hospital 'A' and 'B' had access to prescribing data and assistance from prescribing support dietitians who were familiar with the local systems.

A small number of paediatric patients were audited. The data on these patients is excluded from the analysis of nutritional products choice, dose and rationale, but is included in the discharge communication quality criteria.

One of the aims of the audit was to obtain quantitative data on the volume of prescribing at discharge (or transfer of care). Information was also collected on time period for audit and location. However, due to the significant variability in case identification it is not possible to analyse incidence or frequency.

Assessment by healthcare professional

Data was categorised as:

- Referred and seen by dietetics.
- Not seen by a dietitian (not referred, unable to determine or referred but not seen prior to discharge).

Healthcare professionals (HCP) prescribing the nutritional product were categorised as "dietitian" or "all other" healthcare professionals. The range of patients assessed by a dietitian varied by hospital from 34% to 95%.

One of the six hospitals confirmed a 'dietitian only' rule at discharge. However, it is noted that they achieved only 34% percent of patients prescribed nutritional products with dietetic assessment and advice. The trust is in the lowest quartile for dietetic staffing based on model hospital data, and had a number of staff on leave at the time of the audit. The trust does not record data on patients referred but not seen by a dietitian and not prioritised and discharged before being seen, i.e. those that should have been seen but were not due to lack of capacity. In contrast, the hospital with the largest sample size is in the highest quartile for dietetic staffing in model hospital data and achieved 87% of patients prescribed NBS seen by a dietitian. However these figures should be interpreted with caution because we cannot tell if the audit sample was representative of the dietetic service to the hospital as a whole.

It cannot be assumed that the dietitians prescribed NBS for patients they had assessed. Clarity about the details of the dietetic care plan and what was intended vs prescribed is beyond the scope of this audit, but it is noted that miscommunication within the multidisciplinary team is a potential problem area with risk of duplication and prescribing errors. There is a lack of clarity and consistency about whether dietitians have the rights to authorise administration of nutritional products on medicine charts and a number of local practices to work around this have been developed as result. For dietitians to rely on doctors to prescribe rather than doing so themselves introduces a number of difficulties related to the risk of errors and unclear accountability.

Nutritional product choice, dose/frequency and rationale

1. Product choice (number of patients by type of products)

Table 2. Product choice (number of patients by type of products)

224	products	
	189	prescribed **one** product
	32	prescribed **two** products
	3	prescribed **three** products

A majority of patients were prescribed only one type of product, with decreasing numbers prescribed higher numbers of products. This is as expected and indicates that the data is representative.

2. Product choice (formulation) at discharge

Table 3. Frequency of product category authorised by dietitians and other HCP

NBS product category	Dietitian	Other HCPs/ not identified	Total
Adult	**132**	**86**	**218**
Compact 2.4kcal/ml	50	35	**85**
1.5kcal/ml	38	32	**70**
Modular ONS	7	8	**15**
Pudding style	12	3	**15**
Juice	10	3	**13**
Powder 57-61g	6	2	**8**
2.0kcal/ml	5	2	**7**
Other Specialist Adult ONS	2	0	**2**
Powder >61g	2	0	**2**
1kcal/ml	0	1	**1**
Paediatric	**0**	**6**	**6**
Other specialist infant formula High energy or disease specific	0	4	**4**
Extensively hydrolysed formula	0	2	**2**
Total	**132**	**92**	**224**

This data suggest that dietitians vary their product choice significantly (especially if infant formulas are disregarded). The profession places high importance on individualising the nutrition care plan and using a range of products matched to clinical need and patient preference. The data indicates that this is practiced by utilising a range of products.

The high rates of use of compact (2.4kcal/ml) products is potentially of concern. Compact products are helpful in reducing the volume required and can increase adherence. However, they are not suitable for patients who struggle to maintain an adequate fluid intake and a poor value option for those who can tolerate a standard 1.5kcal product or powder. Dehydration is a risk factor for falls and pressure sores, reduced renal function, constipation and links to effectiveness of diuretics and laxatives, polypharmacy (i.e. concurrent use of multiple medications) (14). Compact products should be prescribed cautiously, in patients where they are specifically indicated, and the risk of dehydration should be appropriately managed. Given that 169 patients had no documented rationale for what was prescribed, there is high risk that

patients are being prescribed products without adequate assessment and therefore no assurance of their appropriateness.

Product choice can be further analysed to consider liquid or powdered oral nutrition support (ONS) as there is a significant cost difference. Liquid ONS products have been grouped together and we looked specifically at powdered ONS of 57- 61g as the best value ONS. The ratio of powder (57-61g) to liquid ONS (all densities) is 0 to 20%, with four of the hospitals not prescribing (or requesting) powder ONS on discharge.

Table 4. Analysis of liquid and powder ONS

NBS product category	Liquids	Powder 57-61g
Hospital A	100%	0%
Hospital B	100%	0%
Hospital C	82%	18%
Hospital D	100%	0%
Hospital E	80%	20%
Hospital F	100%	0%
Grand Total	**95%**	**5%**

The data shows there are very few patients being discharged on cost-effective powders.

3. Product choice (contract or non-contract product)

To further understand product choice we looked at whether the NBS by manufacturer, and whether this was part of the enteral nutrition contract or a competitor product. Products were coded into contract or non-contract for sip feeds and powders (a number of products were excluded as no equivalent product). This reveals that a majority of prescribing is in line with nutrition supply contract products (penny or zero priced in the acute sector) which are unlikely to be CCG preferred products.

Table 5. Analysis of contract or non-contract products authorised by HCP

	Dietitian	Other HCPs	Total
Contract product specified on discharge	110 (89%)	75 (96%)	**185 (92%)**
Non-contract product specified on discharge	14 (11%)	3 (4%)	**17 (8%)**
Total	**124**	**78**	**202***

*Note specific products were excluded from this analysis as not appropriate to classify if no equivalent products.

It is noted that one hospital had significantly higher rates of dietetic non-contract product choice at discharge. This is important as it highlights the potential for change in prescribing

choices. The high rates of prescription requests for contract products are of concern. Overall it appears that the CMU guidance and efforts to educate on the impact of acute hospital onward prescribing of contract products on the ONS budget in community is not having a significant impact on acute prescription requests in most hospitals.

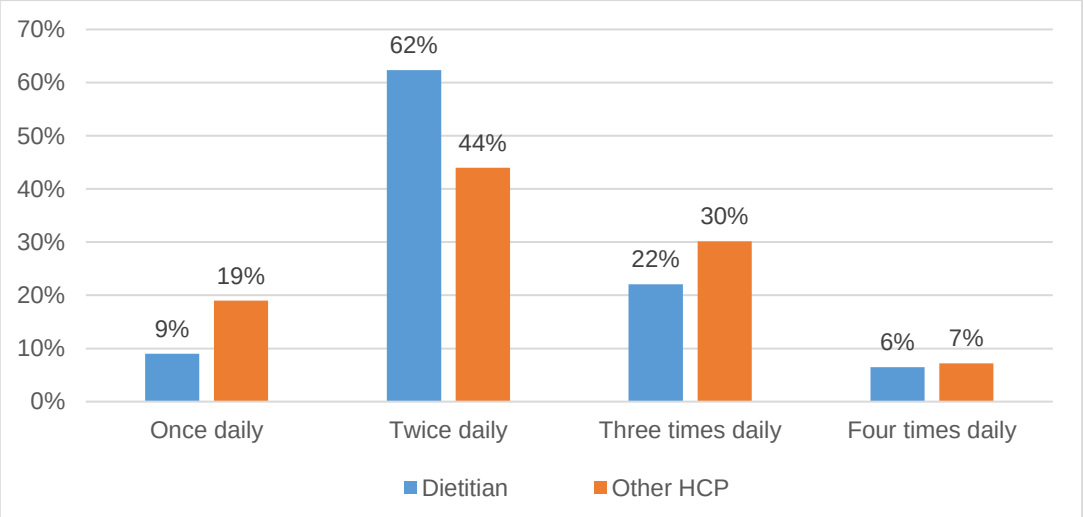
4. Dose frequency and rationale

Records were audited to identify the rationale for the doses authorised. Dietitians document a rationale for dose in 38% of cases, compared with other HCP who document a rationale in 0% of cases. Dietitians meet the criteria (1 and 3) for appropriate authorisation or prescribing of NBS most often.

Where an indication for the dose was given (n = 47) these cases have been excluded from further analysis. Graph 3 compares dose frequency by HCP with no rationale.

Graph 3. Comparative dose frequency of adult ONS authorised by dietitian and other HCP with no rationale on dose

Note: dose frequencies of higher than QDS were omitted (this includes infant formula)



Dietitians are most likely to recommend twice daily use but not provide a rationale for the dose. Dietitians have lower rates of recommending once, three or four times per day dosages. The once daily prescribing is of interest, especially as the rationale for it isn't documented. In select cases a once daily sip feed may be assessed as appropriate but this is contentious as many argue that nutritional counselling would be both equally effective and preferable to the patient and therefore better value. One hospital had a significantly larger patient sample of dietitians recommending once daily sip feeds. There may be a clinical rationale for this but it also highlights the lack of a peer review culture to support prescribing choices by dietitians.

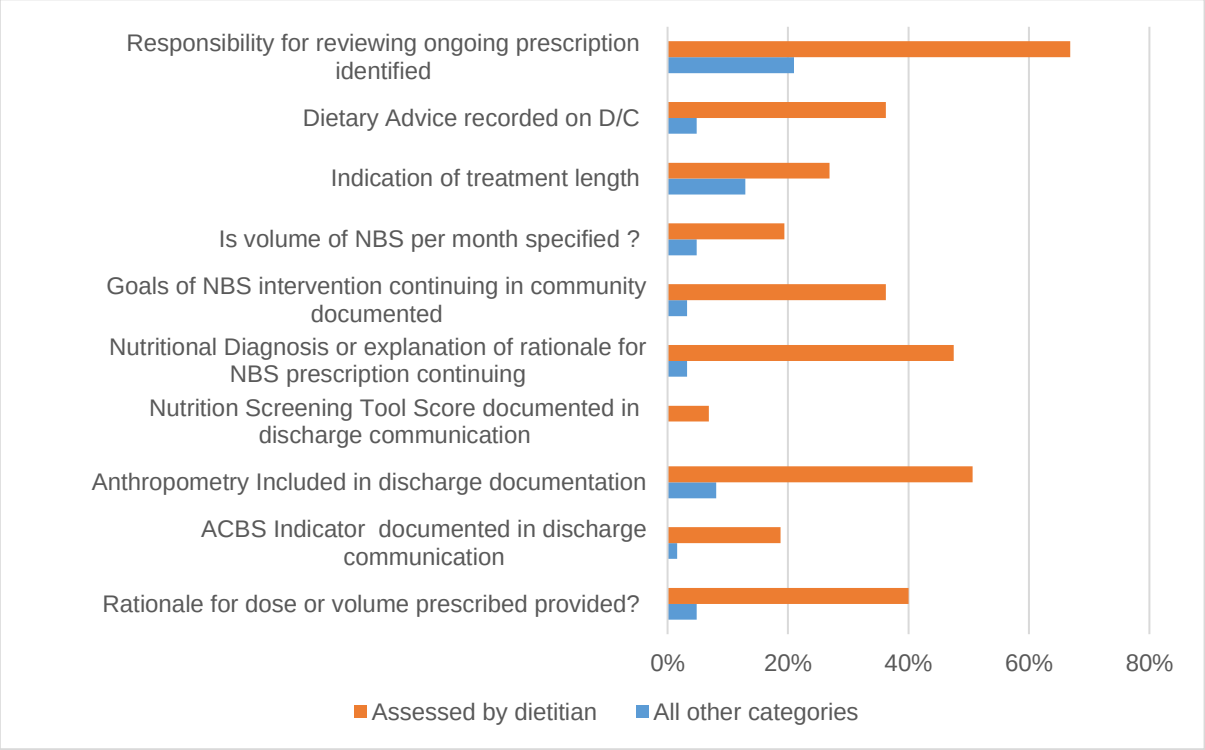
The choice of dose made by other HCPs is of particular interest. It is unclear how a patient-centred decision is reached, or whether it is a result of clinician preference or habit. It is assumed that other HCPs recommend typical doses, e.g. three times daily, more frequently rather than individualised doses as doctors do not typically assess food intake or consider requirements. This is a concern as non-dietetic prescribers typically prescribe higher doses without clinical rationale. Without nutrition assessment to titrate dose against deficit, advise on timing of supplements, assess compliance and advise on optimising food intake whilst on a

supplement, this is very high risk for non-adherence or displacing ordinary foods with supplements.

Discharge communication

A summary of the quality criteria for communication on discharge, by profession, is provided in Graph 4. The graph demonstrates the range of high quality care provided by dietitians, and how this contrasts with no dietetic support.

Graph 4. Quality criteria for communication on discharge, by profession.



The audit aimed to collect a number key pieces of information which reflect best practice in discharging on nutritional products (1 and 3). This level of detail is expected for dietetic-led recommendations, and the CCGs with a policy of allowing prescription of only dietetic endorsed requests can be viewed as recognising that a higher quality of prescribing of NBS is associated with the specialist professional input (in addition to recognising higher level of risk management by dietitians).

The responsibility for ongoing review of the prescription was most consistently reported on by dietitians (>60%) and other HCP (>20%). This is likely a reflection that dietitians will either continue to review treatment via outpatient clinics or transfer high risk patients to community teams. Use of anthropometry was the second most consistently reported parameter, and again is likely to reflect the level of specialist understanding of malnutrition and the importance of demonstrating outcomes.

Use of the nutrition screening tool score was most consistently overlooked. This is a concern as lack of data which the tool can provide is likely to be a significant contributor to

inappropriate prescribing. There is high risk of over or under prescribing both in terms of duration of treatment and volumes issued. The poor communication of total volume to prescribe per month is problematic as this is very high risk for error (under and over prescribing).

Overall the levels of recorded information to support appropriate prescribing of nutritional items is of concern. The lack of information reduces the ability of community teams to effectively review if the prescription is appropriate.

Discussion

Participation in the audit by six acute trusts is positive and provides an insight into this area of significant importance to quality of patient care and value for money. The audit design is robust and the data we collected provides a baseline from which to develop a better understanding of future practice. Two of the trusts encountered difficulties in case identification and did not find the minimum number (20) of cases stipulated. This highlights the challenge of case identification when convenience sampling is not possible and the importance of;

1) Joint working between dietitians and pharmacy colleagues to interrogate available data;
2) And developing systems to monitor NBS which allow auditing and reporting.

Agreement about accountability for prescribing NBS will remain challenging if the supervision of NBS is not designated to a specialist health professional and there are no reporting mechanisms in acute trusts. It is recognised that trust pharmacy services may lack the physical space, capacity and believe that NBS can be safely managed by others. However, it must be recognised that locally developed alternative arrangements may lack the oversight and responsibility required for this area of practice. This may be of particular importance in hospitals which lack senior dietetic or Allied Health Professional (AHP) leadership. With increasing focus on job plans in support of delivering Carters review of productivity in the NHS, a senior clinician post with dedicated time to support trust wide management of NBS should be considered. Unless there is a senior dietitian (or AHP) with a specified role in the overall supervision of NBS trust wide with supporting reporting systems, reduced accountability is likely.

The audit did not meet its aim of generating data on the volume of prescribing of NBS at discharge which is comparable between hospitals, due to the sampling challenges. As a result of the variability in sampling and case identification at each hospital, we cannot assume that a representative sample was audited in every trust. For example, Hospital A audited 92 patients and therefore contributed a significant number of the audited patients, whereas hospital D achieved 95% of patients being discharged home on NBS assessed by a dietitian but it cannot be assumed on a sample size of 20 that this is representative of what the trust achieves overall.

A small number (six) of paediatric patients were audited. No concerns were reported with the validity of the audit tool and consequently, the audit tool is considered appropriate for this patient group. Given the current level of concern with appropriate prescribing of extensively hydrolysed and amino acid formula, future rounds of audit could focus specifically on this patient group.

The typically limited number of products and range of doses recommended by non-specialists suggests there is low variability in product choice and high variability in total volume recommended with no rationale. The wider range of products recommended by dietitians highlights the opportunity of utilising a range of products matched to patient requirements and preference. The powder: sip feed ratio is of significant economic importance due to the cost difference between the two types of product. The barriers to increased prescribing of powdered ONS at discharge need further exploration but it is noted that there is high variability between trusts. Powdered ONS are typically not included in the contract and as a result are unlikely to be on the formulary. However, if on the formulary, the potential to be able to choose (or default to) these options at discharge, alongside accompanying patient information, would be worth evaluating, especially for patients at low to medium risk of malnutrition. This would place a low priority on having trialled the patient on a product before prescribing, which is in contrast to normal dietetic practice of trialling first then prescribing. Understanding the differences in patient populations seen by dietitians may also be important in understanding differences in ONS choice, e.g. dietitians are more likely to see acutely ill and malnourished patients and may recommend sip feeds rather than powders as part of their clinical judgement. However, further understanding about and an audit of this area is recommended.

The low level of off-contract product usage suggests that hospital prescribing recommendations for NBS are usually in line with a nutrition supply contract. Current approaches to encourage compliance with both CCG local preferences and CMU guidance has had very limited impact in most hospitals. There are conflicting interests between acute providers and commissioners, and acute providers may not prioritise this area of practice. However, developing our understanding of the barriers to suggesting non contract products at discharge is recommended. For example, the following are barriers to recommending non contract products:

1) Lack of knowledge about the cost of different ONS and impact on community budgets.
2) Concern with script switching due to professional belief about the importance of having trialled a patient on a product prior to requesting a prescription.
3) Confusion over the preferred product list of local CCGs.
4) Lack of appraising the clinical and economic value of nutritional characteristics in otherwise broadly equivalent products.

All are potentially barriers that can be influenced. Working collaboratively across the healthcare economy to understand and explore the rationale for optimising to non-contract products at discharge is recommended. Medicines optimisations teams can promote local CCG, or preferably STP, formulary choices to dietitians and more widely. Education for dietitians in this area is dependent on local medicines optimisation teams being able to access dietetic professional meetings. Our data suggests this opportunity is currently limited or having a limited impact. There is a need to trial new approaches to communicating key messages with the aim of creating a culture of stewardship for ensuring value in nutritional prescribing. Cross sector working to influence product choice and prescribing practices at discharge via electronic prescribing, is as yet largely untested.

This audit has not captured prescribing (or requesting/authorising) errors of which there are a number of potential sources within the hospital:

1) Lack of understanding of different products – incorrect product prescribed on verbal request.

2) Transcription errors – incorrect product prescribed on medicine chart but correct product identified in patient notes.
3) Lack of accountability and clinical governance in prescribing choices (if dietitians are specifying products but not receiving recognition, training, feedback or supervision).

The risk of such errors is higher if dietitians are not supported by trust policy to authorise administration of NBS on medicine charts independently. Pharmacy issue data (IMS) data shows that there is ongoing ordering of 1kcal/ml ONS in acute hospitals or that these items are ordered accidentally by staff who are unaware of the differences between similarly named products. This is has no immediate cost impact on acute trusts, but is a potential cause of under treatment of malnutrition and potentially highlights the ease with which the wrong product can be ordered (and / or prescribed) by non-specialists .

Difficulties with the transfer of information at discharge and the potential for improvement with electronic prescribing systems have been demonstrated (15). Increasing use of electronic patient record systems that include nutrition screening tools (if data is inputted correctly) and auto population of discharge summaries, should ensure that this information will be increasingly available. Additionally the clinicians view of improved patient safety and transfer of care planning is positive (16).

Conclusions

The summative data demonstrates there is significant variation in accessing dietetic assessment and advice (95-34%) dependent on the hospital. Lower levels of communication, and therefore inappropriate prescribing appears to be associated with lower levels of dietitian-endorsed prescribing. The differing challenges of case identification between hospitals was a signification concern both when designing the audit and interpreting the data. However, the design of the audit and data presented has added to our knowledge of the prescribing of NBS at discharge. Further audit across London will be beneficial in confirming these results.

Cross-organisational support is needed to ensure cost-effective prescribing at discharge. The development of aligned hospital and community nutritional formularies is challenging, not least because of the nutrition supply contracts and the different priorities of acute hospitals. Support might be provided by, for example, hospital nutrition steering committees, developing the electronic prescribing systems to select CCG preferred products at discharge, a named senior HCP to have a supervisory role of NBS. Additionally there is a need to consider how data systems can be optimised to permit monitoring and the evaluation of products not supplied via pharmacy. Clarification and consensus about the right of dietitians to authorise to administer nutritional products on medicine charts should be sought for hospitals that lack clear policy.

CCGs should agree with their acute care providers how nutritional prescribing should be monitored and what systems should be in place to allow for meaningful local audit. Consideration should be given on how best practice can be implemented for a clinically important and costly area of care. Given the importance of nutritional prescribing to medicines budgets in community, further understanding of the barriers to optimising at discharge is needed. Dietitians have the knowledge and skills to do this but require the autonomy, recognition and support to develop further skills and a culture of evaluating and accountability.

Mis-use of the types of NBS which were the subject of this audit do not present the same risk of immediate harm to patients as mis-use or inappropriate prescription of prescription only medicines (POM). However, there are long term risk of issues such as poor diabetes control, excessive weight gain and low mood, or conversely chronic malnutrition. Patients and families may feel concerned about adhering to a treatment recommendation that is no longer clinically relevant and if enjoyment of normal food and drinking is reduced. Other patients may not worry about strictly adhering to the treatment plan, taking the ONS intermittently if at all, and this is wasteful of resources. Regardless of how the long term treatment is managed by the patient, at any future assessments of nutritional risk or medicines review, there will be an issue of the appropriateness of the prescription. Additionally, healthcare utilisation costs should be considered alongside inappropriate prescribing and poor utilisation value. With these nutritional products, it is not only risks to patient safety and quality of care but risks to the health economy which should be addressed by managing ONS in a similar way to POM.

As the NHS has limited resources, both underuse and overuse of resources must be considered to reflect a whole health care economy approach.

Recommendations

Responsible prescribing pathways should be adopted with the aims of detailing roles and responsibilities, reviewing processes for NBS and protocol led prescribing.

Clear arrangements for the supervision, governance, monitoring and reporting of NBS. Options include:

1) Named senior dietitian, AHP or pharmacist.
2) Including as part of medicines management.
3) Extending the role of nutrition steering committees.

Hospitals should work towards monitoring and reporting on agreed metrics to demonstrate appropriate prescribing of NBS at discharge. These should include the ratio of dietetic: non dietetic nutritional prescribing and the ratio of contract: CCG preferred products recommended at discharge.

The rights of dietitians to authorise to administer should be included in hospital policy as this is associated with increased appropriate prescribing NBS, and with EPR and EPMA systems that include dietitians and nutritional products, will increase accountability. Further work to understand the prescribing behaviours and education needs of the dietetic profession is needed alongside promoting a culture of stewardship.

Appendix

See Appendix one for further information on the audit protocol, including inclusion and exclusion criteria, product categories.

Prescribing of NBS audit guidance and

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