

COVID-19 & Caring for Enterally Fed Patients

A nutrition team's experience of caring for enterally fed patients in the community setting during a pandemic



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There are approximately 520 enterally fed adults in Birmingham. At least 75% of the patients were shielded from COVID-19 due to age or health conditions. Birmingham Community Healthcare Foundation Trust (BCHCFT) covers a population of 2.6 million, and runs two community hospitals that offer general medical, sub-acute care, rehabilitation, specialist stroke and brain injury rehabilitation services for inpatients. When COVID-19 arrived, as a Birmingham Community Nutrition (BCN) Team of dietitians and nutrition nurses that work for a community trust, we knew our primary role was to protect our patients.

Background

In March 2020, the government released the document '*Hospital Discharge Service Requirements for COVID-19*.'¹ This document set out the hospital discharge service requirements for all NHS trusts, community beds and community health services in England during the COVID-19 pandemic. It confirmed that, unless a patient is required to be in hospital due to medical need, they must not remain in an NHS acute bed. The document clearly states that acute beds are required for COVID-19 patients. Patients who have non-COVID-related disease should be discharged as soon as possible. Where discharge is not possible, a patient may be considered for a community bed. This would relieve pressure from acute trusts and protect vulnerable patients.

The document also outlines that trusts maintain the flow of patients from community beds, including re-enablement and rehabilitation packages in home settings, to allow future patients to be discharged from acute care.¹ It is then a priority for community teams to prevent patients with non-COVID-related disease being readmitted to hospital.

Based on the guidance from this document, the BCN Nutrition and Dietetic Department identified three key areas to ensure patient safety:

1. To provide increased expert care to the community bedded units to allow for increased numbers and complexity of enterally fed patients.²
2. To work with the wider multidisciplinary team (MDT) in order discharge complex enterally fed patients safely into the community.³
3. To prevent patients who may need endoscopic tube procedures being unnecessarily hospitalised.

Providing expert care to the community bedded units

Patients with nasogastric (NG) tubes have only been accepted at BCN rehabilitation hospitals since 2019, and there are strict criteria around acceptance of enteral feeding patients. This includes:

- NG aspirates must be a pH of less than 5.5. X-ray is not permitted due to limited facilities. Rehabilitation isn't possible if the tube becomes unstable
- Patients with an NG tube are not accepted unless the patient has a gastrostomy tube placement booked at a future date
- Patients with nasojejunal (NJ) tubes are not accepted.

During the COVID-19 pandemic, we decided to remove any previous enteral feeding criteria. To support ward staff, BCN nutrition nurse time was increased from 0.1 WTE to 0.7 WTE. This allowed for:

- 20 ward nurses, trained dental nurses and other redeployed staff to be competency assessed
- 8 separate training sessions and two further sessions for student nurses. These staff worked on wards that had been newly opened for COVID-19.

We recognised that acute intensive care trusts would have an increased need for enteral feeding pumps. So, where possible, we switched all patients to a bolus feed regime to free up pumps for the acute trusts.

Table 1 shows the increase in patients being enterally fed during the COVID-19 lockdown and the increase of jejunal feeding.

Table 2 details outcomes for those patients that had a nasogastric tube placed over the three-month period of COVID lockdown at BCN community hospitals. The majority of patients recovered and were able to eat and drink orally.

Case study example: Patient A*

Patient A was a neurosurgical patient with an NG tube in place due to dysphagia. Patient A contracted COVID-19. Following a difficult time battling the virus we realised that the patient was not tolerating gastric feeding despite trials of prokinetics. The patient was vomiting even with slow gastric feeding and the medical team felt this was a side effect of COVID-19. The patient did not want to return to the acute trust and we were aware of the importance of keeping acute beds free. For this reason, with the help of the Queen Elizabeth Hospital Nutrition Team, we placed a self-propelling nasojejunal tube. On X-ray the tube was found in the correct position. The patient then tolerated NJ feeding and had a PEG with jej extension placed as a day case prior to discharge. This was the first placement of a NJ tube in our community rehabilitation hospital and prevented an acute admission during the pandemic.

Complex home enteral feeding discharge into community

Between April and June 2020, the acute Trusts informed us that PEG placement was for emergency or where discharge was impossible without a PEG.

The community hospitals instigated a thrice weekly MDT (doctors, speech and language therapy [SLT], dietitian and nurse) meeting to discuss patients on enteral feeding. These discussions included the likelihood of patients needing enteral feeding in the community, their destination for discharge, care required and family support. The SLT team discussed the likelihood of patients being able to eat and drink, which enabled us to plan for long-term enteral feeding. Patients with a GP in Birmingham can be discharged with an NG tube to either one of four nursing homes or home, this does not happen in all areas of the UK.

During April to June 2020, Birmingham Community Hospitals discharged 3 patients with NG tubes. The first patient was discharged to a nursing home; the other two patients were discharged to their own homes (see Case study examples for Patient B & C).

Case study examples: Patient B* & Patient C*

Patient B requested to go home with his wife. Neither he or the wife were able to care for the tube. Following significant planning with the discharge team, a complex package of care was put in place to support them. As this was only the second NG tube patient the care agency had supported in Birmingham, the nutrition nurses decided to visit the patient at home daily until all carers were competent and confident to care for the tube. A later audit of documentation from the carers confirmed that the practice was safe and nutrition was maintained.

Patient C was discharged and his wife stated she would care for the NG tube and feed once the patient was home. However, due to restrictions at the hospital she was unable to come in and be trained. We decided to take the risk of training his wife on a demonstration tube prior to discharge; we then trained her with her husband over a period of a week once he was discharged home. The BCHCFT Nutrition Nurses changed their working hours significantly to facilitate this discharge. Ultimately, we felt the wife was competent with NG tube care and the patient was delighted to be home.

For those patients living outside BCHCFT, Nutrition Nurses completed PEG assessments and liaised with the local acute hospitals to place emergency PEGs.

Following placement, in order to reduce time in the acute hospitals, the patients were transferred to the Birmingham Community Hospitals, where they remained as in-patients during their recovery. They were then discharged home shortly after the procedure.

Preventing admission to hospital

For our 500 adult enterally fed patients living in their own homes, the Nutrition Nurses priority is to prevent admissions to hospital. Pre COVID-19, the BCN Nurse Service ran on week days only - 9 am to 5 pm. The team recognised that in order to protect our patients we would need to cover weekends and bank holidays. As we realised that the pandemic was not going to resolve quickly, we decided to work with Nutricia Homeward Nurses who had kindly offered help cover weekends and evenings.

Between April and June 2020, our BCN Team set up 7 patients with degenerative neurological disorders on NG tube feeding in the community, avoiding any visits to an acute trust or community hospital. When the patients were first contacted, they all had refused admission to hospital due to the risk of contracting COVID-19. Patients with neurological disorders are at an increased risk from infection with COVID-19, and there are concerns regarding respiratory complications in this high-risk group.⁴ Eight patients had initially been offered an NG tube but 1 patient had declined tube placement. All patients were on a PEG waiting list prior to the pandemic. Patients with degenerative neurological disorders are at severe risk of aspiration.⁵ A risk assessment was carried out with all patients, and intense training at home took place.

Table 1: Number of Patients being Enterally Fed

Tube type	April-June 2019 No. of patients	April-June 2020 No. of patients
Nasojejunal (NJ)	0	1
Nasogastric (NG)	3	36
Gastrostomy	15	22
Jejunostomy	0	3
Total	18	62

Table 2: NG Tube Patient Outcomes (as of 30th June 2020)

Outcomes	No. of patients
Eating & drinking (NG removed)	21
Discharged with NG	3
Still an inpatient with NG	6
Percutaneous endoscopic gastrostomy (PEG) was placed	4
Fatalities	2
Total	36

“The strategy to keep patients safe during the COVID-19 pandemic was successful. Overall, only 2 patients were admitted overnight to an acute hospital due to enteral feeding problems alone.”

Of the 7 patients with a NG tube placed, none were admitted to hospital or had an X-ray to confirm tube placement. All tube placements had been confirmed by pH.

Case study examples: Patient D* & Patient E*

Prior to the COVID-19 pandemic, patients D & E were called weekly to assess if they could manage nutrition orally.

Patient D could no longer manage food and was very scared of having an NG tube. Once trained, her daughter stated it was best thing to happen to her mother since diagnosis. Patient D chose not have a PEG and was happy with the NG tube.

Patient E was a retired athlete terrified of having anything that could impact on his body image. During a weekly call, his wife informed us that he had been getting chest infections. SLT identified that he was at risk of aspiration. Following several visits, the patient agreed to an NG tube. Two months later he had a PEG insertion when COVID-19 numbers were reduced and his chest infections had stopped.

Case study example: Patient F

Patient F is established on PEG feeding prior to the COVID-19 pandemic. In April 2020, patient F called us with regards to a split PEG. The PEG was not traction removable and the split was next to the skin. We knew that the patient needed a replacement PEG, so the local acute

unit was contacted. They agreed to do a day case PEG but required 3 days to organise it. The patient was shielding and refused admission to hospital or placement of an NG tube. This was now an emergency situation. It was decided that an NG tube would be secured through the PEG to feed through and that electrical tape would be used to secure the NG and split. This was in agreement with the managing consultant. The patient was in hospital for less than 4 hours and her PEG was safe to use. Also, the patient did not contract COVID-19, which could have been fatal.

Discussion

The strategy to keep patients safe during the COVID-19 pandemic was successful. Overall, only 2 patients were admitted overnight to an acute hospital due to enteral feeding problems alone. These 2 patients were established on jejunal feeding. Surgical jejunal feeding tubes need to be replaced in the acute trust so admission could not be prevented.

Despite preventing admissions, from April to June 2020, our caseload reduced by 8%. We have not seen a reduction in caseload for four years. We are unable to formerly assess the cause of this but, due to the significant drop in caseload, we feel this could be due to COVID-19-related deaths.

Even though admissions were significantly reduced, we recognised that it may be more appropriate to admit patients back to the community hospitals rather than acute trust hospitals in order to protect beds.

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*Patient names have been changed to protect patient confidentiality.

References: **1.** HM Government/NHS (2020). COVID-19 Hospital Discharge Service Requirements. Accessed online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/880288/COVID-19_hospital_discharge_service_requirements.pdf (Jul 2020). **2.** Hassell JT, et al. (1994). Nutrition support team management of enterally fed patients in a community hospital is cost-beneficial. *J Am Diet Assoc.*; 94(9): 993-998. **3.** Truax AM, et al. (2020). A144 A Multidisciplinary Team Approach Reduced PEG Site Complications. *Can. J. Gastroenterol. Hepatol.*; 3(1): 7-8. **4.** Bhaskar S, et al. (2020). Chronic Neurology in COVID-19 Era: Clinical Considerations and Recommendations From the REPROGRAM Consortium. *Front Neurol.*; 11: 664. **5.** Best, C Nasogastric feeding in the community: safe and effective practice. September 2013 *British Journal of Community Nursing* VOL. 18, NO. Sup10 | Enteral Feeding normal. **6.** Best C (2013). Nasogastric feeding in the community: safe and effective practice. *Br J Community Nurs.*; Suppl Nutrition: S8-12.