

## Early intervention in complex paediatric patients awaiting discharge with enteral feeding

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Home Management Services (HMS) co-ordinates a community-based enteral feeding dietetic service for patients over four Primary Care Trusts in the south-west of England. The Fresenius Kabi Nursing Service works with HMS to deliver nursing support for these patients including training, troubleshooting, annual review and tube replacement.

Approximately 20% of discharges are complex, with or without the requirement for enteral feeding<sup>(1)</sup>. Early recognition of complex patients is important to target early intervention for feed management to reduce re-admission. This audit aimed to promote early referral of complex patients to HMS. This was to highlight complex patients to target appropriate early involvement e.g. input to discharge planning with enteral nutrition and MDT involvement, pre-empting potential community-based feeding issues.

In determining the definition of ‘complex’ a literature search and approaches to other centres was undertaken. Using the ‘complex’ criteria devised, an audit of paediatric patient’s records for a 1-year period was collected on referrals to the HMS enteral feeding service and the data collated on a MS Excel© spreadsheet. Hypothesised complex criteria from the above sources included multi-agency involvement, need of an interpreter, difficult social situation (e.g. single parent family, low income, parental substance abuse, child being on ‘At risk’ register), patients hospitalised following birth or those requiring multi organ support (e.g. home ventilation and dialysis) and patients for terminal care. It was further hypothesis that the more complex criteria, the more likely the discharge was to fail.

Eighty paediatric patients (39 male, 41 female) were discharged to the HMS service within the year with enteral feeding and all were included in the audit. They ranged in age from 5 months to 16 years at the time of discharge. Length of stay pre-discharge was 2 days to 14 months. They were discharged from a variety of specialties (neurology 15, oncology 14, respiratory 12, cardiac 11, gastroenterology 10, paediatric surgery 5, renal 5 and others 8). Some patients had more than one complex criteria (Figure 1) ( $P = 0.02$ ). Sixty eight discharges were successful (as defined by no re-admission within 48 h). Of 12 ‘failed’ discharges, 4 were expected deaths (in cardiac patients), and only 1 had no complex criteria. The reasons for failed discharge were vomiting and dehydration ( $n = 2$ ), feeding problem ( $n = 2$ ), tube problem ( $n = 1$ ), non-feed related ( $n = 3$ ), RIP ( $n = 4$ ) (Figure 2). Prolonged hospitalization ( $P = 0.04$ ) was the most significant factor in failed discharges.

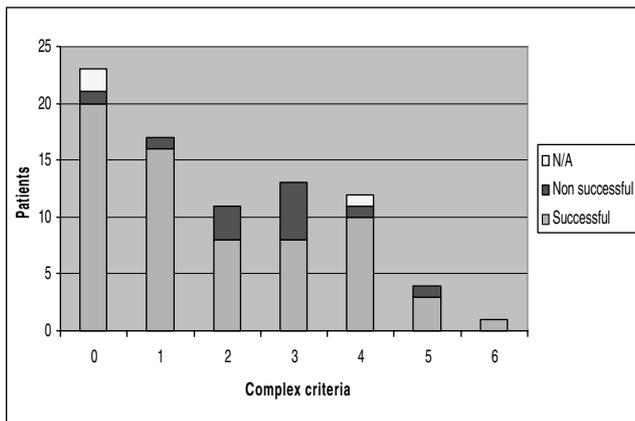


Figure 1. Complex criteria and (un)successful discharge

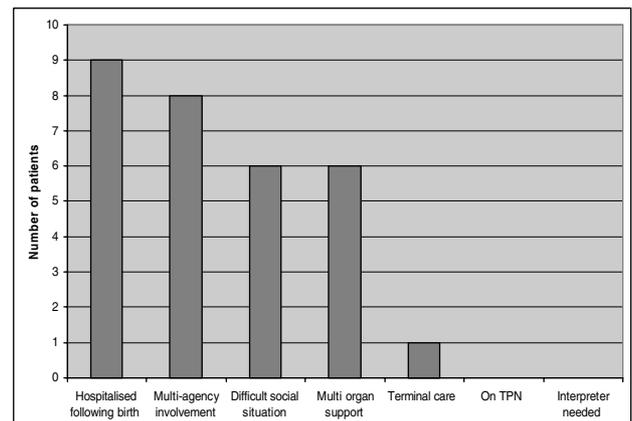


Figure 2. Unsuccessful discharges and complex criteria

There is no standard definition of a ‘complex’ discharge. Patients with 2 or 3 hypothesised complex criteria had the highest failed discharge rate 27% ( $P = 0.08$ ) and 38% ( $P = 0.06$ ) respectively. This has led to development of an early referral form to HMS with clear acceptance criteria to identify complexity. This form results in attendance at MDTs and support for staff, patients and carers to facilitate smooth discharge for complex paediatric patients.

1. Department of Health (2004) *Achieving Timely ‘Simple’ Discharge From Hospital*. London: Department of Health.