A Multi-disciplinary and Comprehensive Paediatric Home Care Team Enhances Safe and Early Discharge of Technology-Dependent Children - QEH Experience

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Introduction
With advancement and support in medical technology and treatment, the numbers of young infants and children who can survive from life-threatening events are increasing. However, many of these patients may become technology-dependent like tracheostomy, gastrostomy, non-invasive ventilator support, and total parenteral nutrition. To address these impacts to family and to cater the increasing service demands of these technology-dependent children, a multi-disciplinary Paediatric Home Care Team (PHCT) was established at Queen Elizabeth Hospital in October 2013. The Paediatric Home care team composes of 4 specialty sub-teams including respirology, gastroenterology, diabetes and central venous catheter care which are led by experienced paediatric nurses in collaboration with specialist in-charge physicians, to provide home care training on home oxygen, gastrostomy or nasogastric tube feeding, ileostomy / colostomy care, hormone / desferal / porta-cath injection, central venous catheter care, parenteral nutrition, tracheostomy care, invasive mechanical ventilation and non-invasive ventilation (BiPAP) etc. Potential candidates will be referred to the home care team for assessment of family support and feasibility of home care. A case manager will be assigned who will assess the suitability of parents and family support for home care, discuss with paediatricians for options of support and training required, provide relevant training, source the required consumables and equipment, and use checklists to evaluate parents’ knowledge and skills to ensure safe patient outcome before discharge. Soon after discharge, telephone follow up is performed by the case manager. Regular ward follow up by specialist in-charge physician together with the case manager will be arranged. Telephone hotline is provided to parents for enquiry and will be responded by the case manager if available and will refer to the specialist in-charge physicians for follow up if necessary.

Objectives
To evaluate the effectiveness of the multi-disciplinary Paediatric Home Care Team

Methodology
The referral cases and the discharged cases from Oct 2013 to Dec 2015 had been reviewed

**Result**
The total number of referrals after PHCT establishment was 118. The average age of referred patients was 7.33 yr ± 5.9 years (the youngest child was 3 months old and oldest one was a 25-year old young gentleman. Twenty-four patients were infants (younger than 1 year old). The variety of home care services provided are home oxygen, tracheostomy care, suction techniques, gastrostomy feeding, nasogastric tube feeding, DM home care and monitoring, subcutaneous injection, CVC line care, non-invasive ventilator support and home mechanical ventilator support. Some patients may require more than one category of training. Most patients were successfully trained and discharged.