

Background

Current practices of caring for children with home oxygen therapy within the tertiary and community settings vary greatly and are often not evidence based. Moss and Bond (2002) cited by Nzirawa et al. (2017) states that having a child on home oxygen therapy could be a complicated process that requires planning and precise communication. Hence, the role of the health professional would be to support and give information to the families when needed (Nzirawa et al., 2017).

According to the National Institute for Health and Care Excellence (NICE) (2010), neonatal units must show evidence of having trained and competent multidisciplinary teams who can deliver care in neonatal settings (Nzirawa, 2015). Bliss (2012) states that decisions made in a child's best interest are based on evidence-based practices, and are informed by parents who are encouraged and supported in the decision-making process.

At a London Paediatric Oxygen forum in 2016 it was identified that current practices for discharging children and managing Paediatric Home Oxygen Therapy across Greater London differ greatly. Both inpatient and community services were frustrated that communication between teams is often poor and families can be left inadequately prepared for life at home with Oxygen Therapy.

Service improvement solution

Following a meeting at a London Paediatric Oxygen Forum, a working group of clinicians involved in the management of children requiring Home Oxygen Therapy, the Paediatric Pan London Oxygen Group (PPLOG) was formed. **The PPLOG was created in order to encourage Children's Nurse Oxygen Leads including Community Neonatal Nurses to share their concerns and find solutions to make the transition from hospital to home of every child on oxygen therapy seamless.**

The PPLOG is nursing led and made up of allied Health Professionals involved in the discharge process of children requiring home oxygen daily. It includes medical, nursing and educational representation from community, Tertiary Respiratory Centers, Palliative care Teams, Neonatal Intensive Care from boroughs across Greater London and the current London commissioned Oxygen Provider. These professionals are committed to streamlining the discharge process of children requiring home oxygen across London.

The solution to the issue of a disjointed home oxygen service for Paediatric patients across Greater London was to **create an evidence based Discharge Bundle to bridge the gap between inpatient and community teams and standardise the discharge process for children requiring Home Oxygen Therapy across Greater London.**

Paediatric Pan London Oxygen Group (PPLOG) Aim

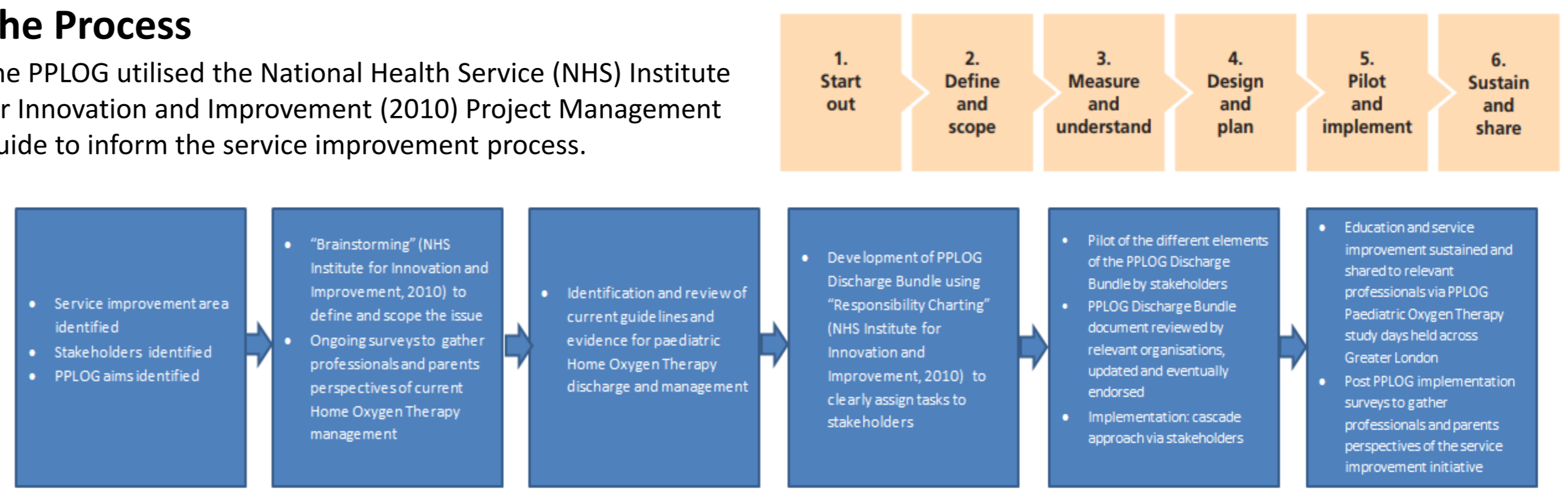
The aim of the PPLOG is to bring the knowledge and experience of Paediatric Respiratory Nurses, Nurse Educators, Palliative Care nurses, Community Children's Nurses and Community Neonatal Nurses involved in home oxygen support together, and set standard guidelines that will ensure the management of children on oxygen therapy is safe and uniform within the London region.

References and further reading

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The Process

The PPLOG utilised the National Health Service (NHS) Institute for Innovation and Improvement (2010) Project Management Guide to inform the service improvement process.

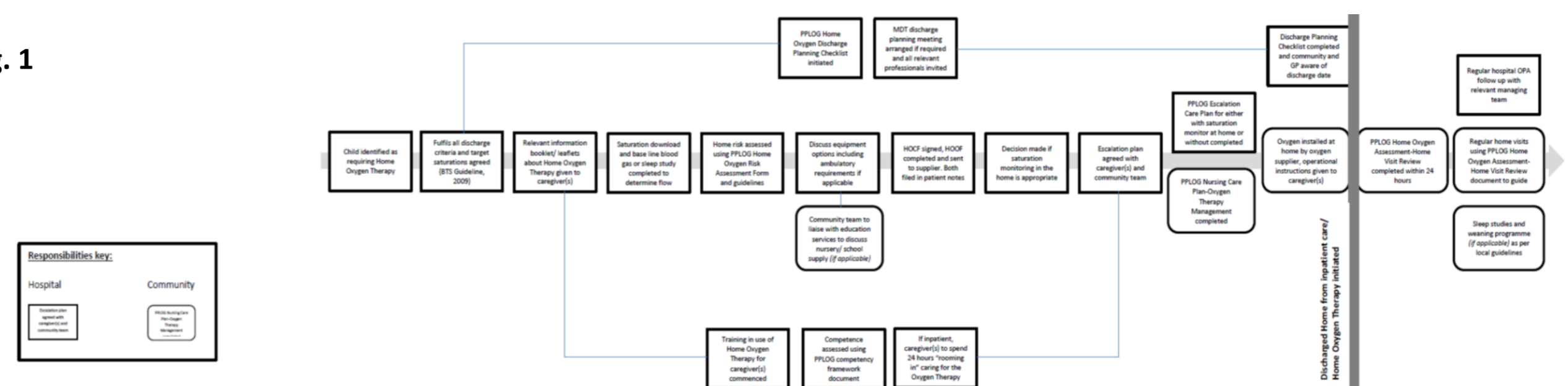


The Paediatric Pan London Oxygen Discharge Bundle

The Paediatric Pan London Oxygen Group (PPLOG) reviewed current discharge guidelines relating to Paediatric Home Oxygen discharge and management incorporating the guidance from the British Thoracic Society (BTS) (2009) and NHS Primary Care Commissioning (2011) to create a Discharge Bundle of 7 documents to aid the safe and timely discharge of a child requiring home oxygen across Greater London:

1. **Home Oxygen Discharge Pathway using PPLOG Discharge Bundle** (Fig. 1)
2. **Home Oxygen Discharge Planning Checklist** (completed by discharging center, filed in notes & copy to CCNT)
3. **Parent/ Carer/ Staff competencies** (completed by discharging center, filed in patient notes & copy to the individual & the relevant CCNT)
4. **Home Oxygen Risk Assessment Form Prior to Discharge, including Guidelines for completing the Home Oxygen Assessment** (completed by CCN, filed in CCN notes & copy to discharging center & caregiver- including a copy of the Guidelines used to complete the assessment)
5. **Home Oxygen Home Visit Review Document** (completed at first home visit by CCN & minimum annually thereafter)
6. **Escalation Care Plan with or without Saturation Monitoring** (either one completed by discharging center, filed in notes & copy to caregiver & CCNT)
7. **Community Nursing Team Care Plan-Oxygen Therapy Management** (completed by CCN for filing in CCN notes)

Fig. 1



This PPLOG discharge bundle is available for use by clinical teams from the Respiratory Futures website

Audit Results

Prior to the distribution of the PPLOG Discharge Bundle, a baseline audit was undertaken to describe current home oxygen discharge processes across London with 47 responses from professionals involved in the discharge of children requiring home oxygen within Tertiary centres, District General Hospitals and Community settings. The audit identified that current home oxygen discharge processes vary greatly in quality across London. **53% reported that education for parents/carers is inconsistent, with 12% reporting they have no formal oxygen education program and 40% not having a competency document.**

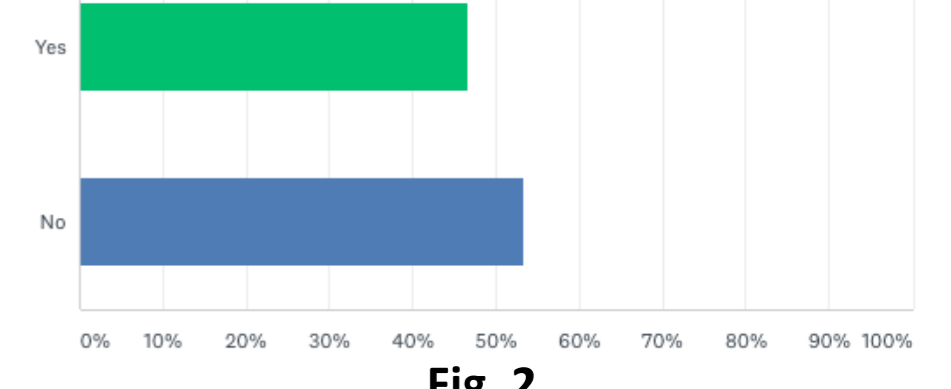


Fig. 2

Over half of patients are discharged without a documented escalation plan (Fig. 2). Overwhelmingly, **97% of professionals thought that a Pan London Discharge Bundle would be useful to support discharge of children requiring home oxygen (Fig. 3).** Once the PPLOG Discharge Bundle has been implemented across London a further audit will be undertaken to ascertain the impact of the PPLOG Discharge Bundle on the discharge process for children requiring home oxygen therapy.

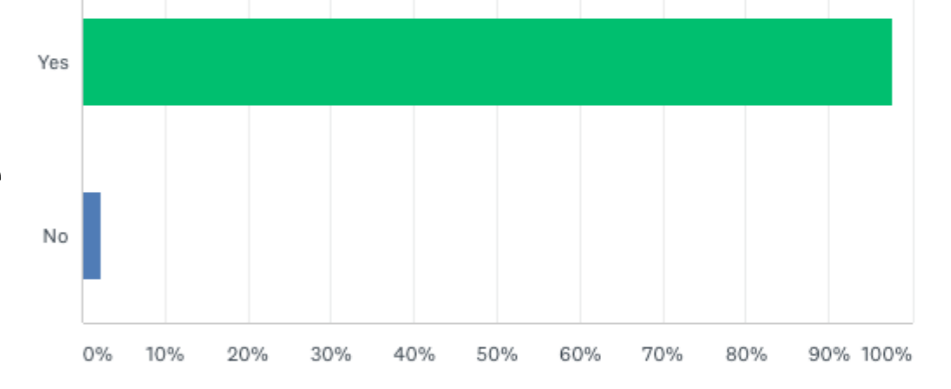


Fig. 3

Implications for practice

The aim is that professionals involved in the discharge of children across London requiring Home Oxygen Therapy will utilise the Pan London Oxygen Discharge Bundle in order to **improve the quality of paediatric home oxygen discharge** which, from the audit undertaken, has been identified as of varying quality. **In turn, this may reduce bed days** in Neonatal Intensive Care Units or paediatric wards as communication is improved and the discharge process streamlined. The impact of the PPLOG Discharge Bundle is in the process of being evaluated with the hope that, if successful, this may be utilised as a national tool in the future.

It is anticipated that some areas, particularly well established neonatal units or Tertiary Respiratory teams may have their own processes already in place and may be reluctant to adopt the PPLOG Discharge Bundle. The PPLOG plans to overcome this by enthusiastic face to face teaching on the discharge bundle at the PPLOG Oxygen Study Days in July and October 2018. A cascade training approach will be used for key members to disseminate the Discharge Bundle education to the rest of their team.

PPLOG Future Plans

- Continue to share PPLOG document with relevant networks
- Continue to disseminate for use across London - face to face by allocated PPLOG champion (N, S, E & W London)
- Complete audit of professionals and parents perspectives across London of Home Oxygen Therapy management pre and post the PPLOG Discharge Bundle implementation
- Run Paediatric Oxygen study days 2-3 times a year (July and October 2018) to sustain implementation of the PPLOG Discharge Bundle
- Create a Paediatric Home Oxygen Removal Pathway (Pan London weaning guidance) - a need identified by the audit undertaken