doctors as *'O2 Ninjas'*. Data were collected at three points after each cycle from drug charts and VitalPaC.
Results See Table

Abstract P204 Table 1

	National Audit 2013	National Audit 2015	Telford Audit Autumn 2015	Telford Re-audit Spring 2016	Telford Re-audit Summer 2016	Target Standards
Number of patients on oxygen	6214	7741	70	75	31	–
Prescribed	55%	58%	61%	79%	84%	90%
Prescribed & Targeted	–	53%	95%	98%	100%	100%
Prescribed, Targeted & Delivered	52%	69%	63%	62%	62%	100%

Conclusions Our QIP shows that education and empowerment of 'grass root' healthcare workers can improve oxygen prescription on a Respiratory ward. We suggest this QIP is replicated in other trusts and specialties to improve safe oxygen delivery.

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P205 IMPROVING LONG TERM OXYGEN PRESCRIBING AT HOSPITAL DISCHARGE: A BEFORE AND AFTER STUDY

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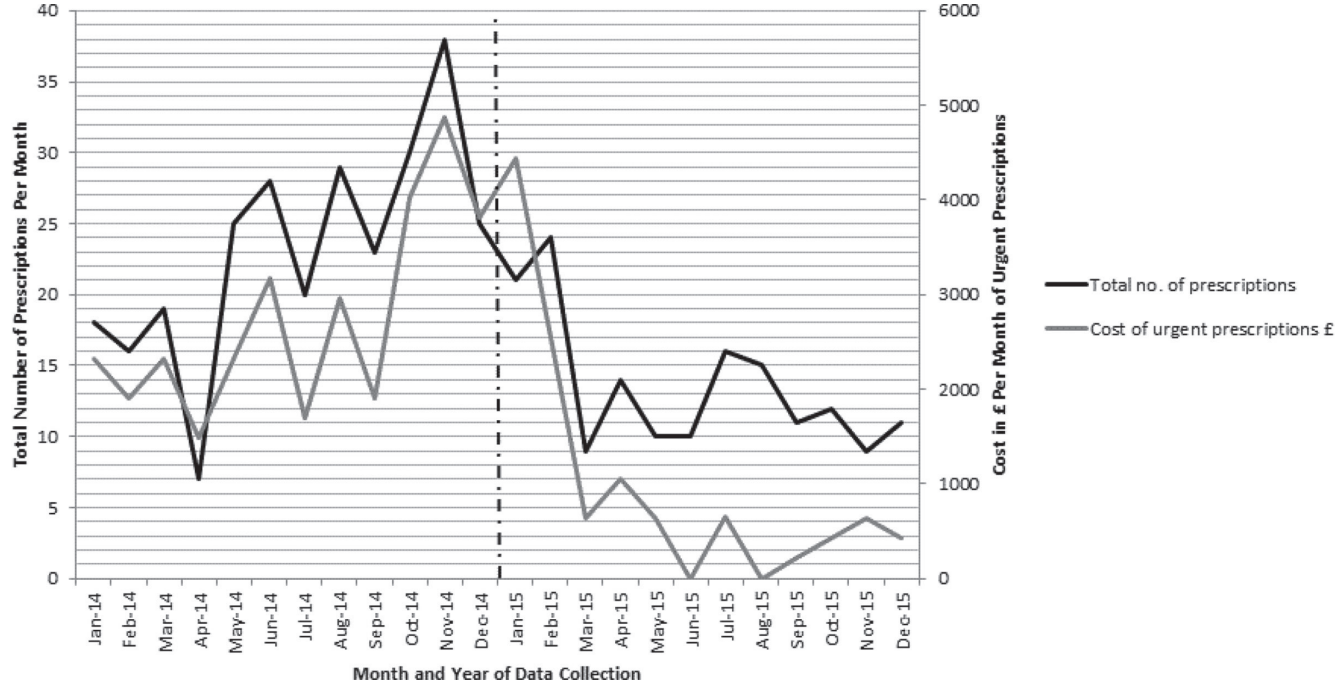
Introduction Home oxygen costs the NHS approximately £120 million a year, with £13 million spent on oxygen that is never used.[1] Home oxygen teams require integration into the wider respiratory care pathway to ensure appropriate assessment of clinical need and risk, education and follow-up.[2] In Derbyshire, prescriptions initiated in the community had appropriate assessments in 90% of cases. In contrast, home oxygen initiated in secondary care at discharge was often prescribed on day of discharge, by junior doctors with no specialist training, without appropriate assessment and education, frequently necessitating early community input. Following two serious incidents post discharge, a study was implemented to evaluate the impact of a different approach to home oxygen prescription following acute hospital stay. The new service included an in-reach oxygen nurse and bespoke risk assessment for hospital discharges.
Methods A before and after study was performed recording key outcomes, including number of prescriptions, cost, and input required post-discharge. This was carried out over a period of 12 months before and 12 months after implementation of the new service, assessing impact on compliance with guidelines and patient safety.
Results In the pre-intervention period there were 278 home oxygen prescriptions resulting from the acute care setting, all performed by junior doctors, with 155 urgent (same day) prescriptions totalling £32,815. In the 12 months post-intervention there were 145 home oxygen prescriptions, 88 by in-reach nurses, including 56 urgent orders totalling £11,655. The pre-



Abstract P205 Figure 1 Trend in total oxygen prescriptions and cost of urgent prescriptions throughout the trial period

vious need for 2 month post discharge visit for assessment and education reduced significantly, with associated dramatic reduction in phone-calls from patients with queries.

Conclusion This study, though limited to single centre, shows significant cost and potential safety benefits. Introducing greater rigour to the in-hospital assessment process was thought to account for the overall fall in oxygen prescription, particularly high-cost urgent orders. With reduction in need for post-discharge intervention also reducing the burden in the community and suggesting greater patient understanding.

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P206 ACHIEVING RESPONSIBLE OXYGEN PRESCRIBING TO IMPROVE VALUE: LONDON CARE HOMES

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Background Around 85,000 patients are currently prescribed home oxygen (HO) in England, costing the NHS > £100 million/yr. There are about 11000 HO users in London costing £12 million/yr. Department of Health data suggest 24%–43% of oxygen prescribed is not used/used inappropriately. The aim of this study was to better understand HO prescriptions/use in London nursing/care homes.

Methods Air Liquide (AL), the London oxygen provider, reviewed their database to identify nursing/residential/care home and hospice residents with an active HO Order Form (HOOF) as of January 2016. Staff education and support was undertaken by the AL respiratory nurse advisor (ALRNA) from Jan–June 2016. Results were reviewed with the London Clinical Oxygen Network.

Results 245 adult patients with a HO prescription were identified across 155 nursing/residential/care homes and hospices in London (mean age 77, range 22–102 years). Table 1 shows the Clinical codes on the HOOFs. The indication for oxygen was unknown in 52 (21%). HO prescription ranged from 0.5–15 LPM; equipment ranged from oxygen concentrators, ambulatory cylinders (89), static cylinders (22), portable oxygen concentrators (5) and liquid oxygen (2). 168 (68%) patients were underusing oxygen while 38 (15%) were overusing. 36 (14%) patients were not using their oxygen at all. Only 90 (36%) patients had a HOOF dating from 2016; 157 (64%) had a HOOF more than a year old. Issues noted included lack of information as to indication for HO and who to contact for guidance, absence of clinical directives from prescribers resulting in 'PRN' oxygen use and training needs around storage/use of oxygen equipment.

Abstract P206 Table 1 Clinical codes for home oxygen provision for patients in London care homes

Clinical code on HOOF	Number of patients
COPD	71
Palliative	55
Unknown	52
Paediatric/Neonatal	19
Neuromuscular disease	11
Cluster Headache	10
Primary Pulmonary Hypertension	8
Other Respiratory	4
Cystic Fibrosis	4
Obstructive Sleep Apnoea	2
Bronchiectasis	2
Heart Failure	1

Conclusion A sizable number of nursing/residential/care home and hospice residents in London are currently prescribed oxygen which is being over/under or inappropriately used without ongoing specialist support/review. For 1 in 5 patients the clinical indication is unknown. New oxygen prescriptions for 'nursing home' patients should include guidance on use, staff training and ongoing support. These data exemplify broader issues relating to a lack of commissioned HO pathways and the need for commissioned Home Oxygen Review (HOS-R) services across all CCGs to keep patients safe, maximise patient benefit and reduce waste.

P207 SELF-FILL OXYGEN SYSTEMS – BENEFITS FOR PATIENTS, HEALTHCARE PROVIDERS AND THE ENVIRONMENT

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Introduction 'Non-delivery' Home oxygen concentrator systems that allow self-filling of ambulatory oxygen (AO) cylinders are emerging. They offer a relatively unlimited supply of AO in suitably assessed people who require Long term oxygen therapy (LTOT) with the proviso that they can use these systems safely and effectively, thus allowing users of LTOT to be self-sufficient and facilitating longer periods of time away from their home.

Methods A national review of the home oxygen service in Scotland was undertaken resulting in consolidation of all home oxygen delivery systems under a single contractor with the transition to this new service delivered over 2013. A health economics analysis was conducted following the transition to compare the differences between the previous conventional AO cylinder home delivery service and the HomeFill (HF) system.

Results Conservative calculations indicate a cost for 3 AO cylinders of about £84 per week, or £4247 per year, compared with a cost for HF of £920 per annum, giving a benefit of around £3344 for each patient. The costs savings related to reduced travel and delivery in 1213 HF users compared to the AO cylinder delivery model is 1.25 million Km's and the estimated carbon emission (CO_2e) reduction for the HF system is 261.29 tonnes of CO_2e.

Conclusion Evidence is emerging that 'Self-fill'/'non-delivery' oxygen systems can meet the AO needs of many patients using LTOT and can have a positive impact on quality of life; increased time spent away from place of residence and can offer significant financial savings to health care providers. Even with conservative estimates in the health economics analysis, the provision of the HF system to around 1000 patients saves about £1.67 million per year in Scotland. Self-fill oxygen delivery systems have been available in the UK for >5 years and whilst one could argue for a larger randomised controlled trial, the authors would propose