

# 'Light Touch' telemonitoring for people with COPD in Lothian: a pilot evaluation

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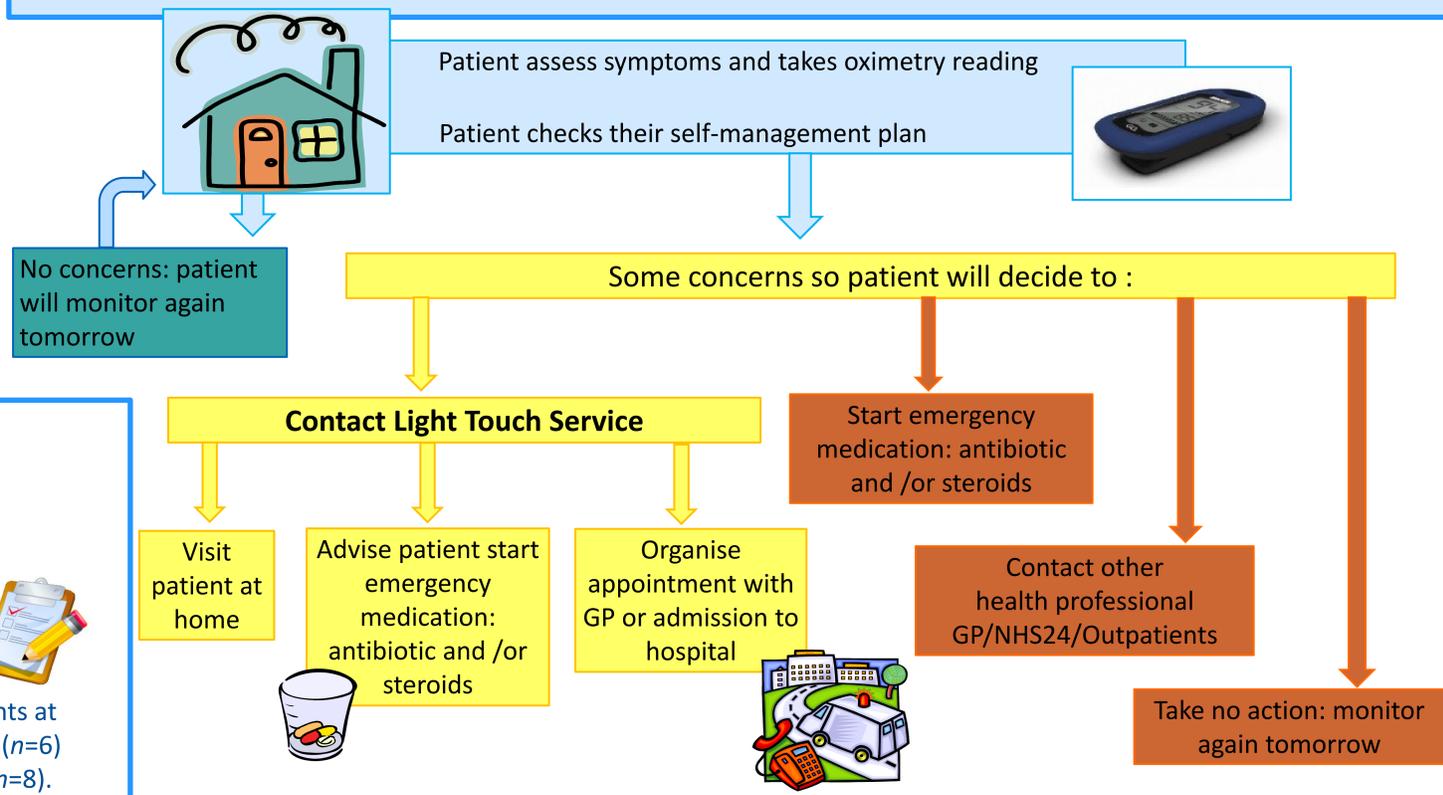


## INTRODUCTION

- Chronic Obstructive Pulmonary Disease (COPD) is a major cause of death, disability and hospital admissions due to exacerbations.
- Telemonitoring aims to help people with COPD recognise early signs of deterioration and improve access to care in order to enable prompt management of exacerbations.<sup>1, 2 & 3</sup>
- Professionally monitored telehealthcare did not reduce hospitalisations and had significant workload implications.<sup>3</sup>
- NHS Lothian therefore instigated an alternative 'Light-Touch' approach. The effectiveness of this was unknown.

## ABOUT 'LIGHT TOUCH' INTERVENTION

- Community-based respiratory/long-term conditions teams developed a self-management plan in consultation with the person with COPD.
- Daily monitoring with pulse oximeter and symptom diary and reference to the plan determined self-referral.
- The service was overseen (though not actively monitored) by the teams who were contactable by a telephone helpline.



## METHOD

Baseline and six month outcomes

- St George's Respiratory Questionnaire (SGRQ)
- Hospital Anxiety and Depression Scale (HADS)
- Patient Activation Measure (PAM)
- Euro-Qol-5D
- Service use from GP records

Qualitative semi-structured interviews with patients at baseline (n=20) and six months (n=16); managers (n=6) and a focus group with healthcare professionals (n=8).

## RESULTS

51 patients [mean age 69.7 years (SD 8.4) male 24 (47%)] were recruited between February and July 2013. 46 completed the 6-month assessment.

- SGRQ:** The scores of 21 (46%) participants improved by  $\geq 4$  (the minimum clinically important difference) 12 (26%) deteriorated by  $\geq 4$
- HADS:** More participants had normal scores for anxiety (65%) and depression (80%) at 6 months than at baseline (51% and 64%)
- PAM:** No significant change in levels of activation among participants
- Service use**
  - 18 (39%) participants contacted the Light-Touch Helpline: during study
  - There were fewer consultations with GPs at the surgery but more by telephone and more prescriptions for antibiotics, oral steroids and nebulised therapy in the study period compared to an equivalent period in the previous year
  - There was no significant difference in secondary care use.

## QUALITATIVE RESULTS

### Patients taking on self-management

The patients used oximetry as a guide to their wellbeing. They used the monitoring to support their decisions about their treatment and reduced reliance on the healthcare professionals



"So with having that [the oximeter] you're, you're not having to constantly call your practitioner to come out and make sure that you are okay." (Carer 19)

"It [the oximeter] is telling you, rather than a doctor saying, you know, with a stethoscope or something like that, that can tell you you're okay, you're in the level of...you're not feeling unwell." (Patient 19)

"It helps me, it gives me a bit of confidence. ....Any problems, yeah, because you're actually going by what it says on the front of that [refer to the management plan], you're actually...well you're looking to make sure it's alright" (Patient 26)

### Healthcare professionals relinquishing control

The professionals used the pulse oximeter as a teaching tool and perceived that it had a positive impact on self-management.



"...one of the things that we've been using with the IMPACT team is to help support people, especially carers, recognise the symptoms and recognise the difference maybe between anxiety, breathlessness, and actually an exacerbation". (District Nurse, IMPACT)

However, some professionals expressed concern about the reduced contact with patients who rarely seemed to need professional support.

### Healthcare managers

One of the managers described Light Touch as

"bringing the use of technology into the assessment process"



and saw it as a tool for supporting self-management

## CONCLUSIONS

- Provision of oximeters as part of a community-based 'Light Touch' service was perceived as promoting understanding of symptoms, and providing the confidence to enable people with severe COPD to assume control of their condition.
- The absence of data transmission and professional monitoring both reduced workload for the professional and seemed to enable patients to take responsibility for self-management.
- Further research will be needed to establish the effectiveness of this approach on clinical outcomes

### References:

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