Project Summary Title: Brighton & Hove CCG and GSK Respiratory Pharmacy Joint Working Project

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Context: Brighton & Hove CCG and GSK Joint Working project aimed to support the delivery of improved patient adherence, medicines optimisation and reductions in medicines wastage, by rolling out the Complete The Cycle inhaler recycling scheme to pharmacies in the CCG and through training and up skilling pharmacists involved in this project.

This involved measuring the levels of remaining medicine in the returned inhalers and provision of high quality targeted Medicines Use Reviews/inhaler technique training in order to understand and act on poor adherence to medicines for, or inappropriate management of, asthma and COPD patients.

Outline of the problem: It has been reported anecdotally that patients return inhalers to the community pharmacy which are full, or only partially empty, but the reason for returning these inhalers is not always clear.

Assessment of the problem/analysis of its causes: To further understand the levels of medicine in returned inhalers and so support appropriate interventions from Brighton & Hove CCG

Strategy for change: A media campaign, developed by Brighton & Hove CCG sought to raise awareness around compliance and waste to respiratory patients and encouraged them to speak to the pharmacist about their respiratory medications and adherence when returning their inhaler to be recycled. This involved measuring the levels of remaining medicine in the returned inhalers. Training was carried out at each of the pharmacies who signed up to the project.

Measurements of improvement: Data from 3 audits to quantify, characterise and measure the type and level (proportion by weight and unit) of unused/partially used/used inhalers from 27 pharmacies to better understand the pattern of inhaler wastage. The definitions were

Empty Inhalers
An ‘empty’ metered dose inhaler always contains some residual medicine (the ullage), and will contain <10% of the filled weight. For the purposes of this analysis, any inhaler with < 10% of the full amount was counted as empty.

Full Inhalers
For the purposes of this analysis, any inhaler containing > 90% of the full weight was counted as full.

Partially Used Inhalers
Any inhaler between the boundaries above was considered as a partially used inhaler

Effects of change: These are the headlines from the 3 audits

First audit

- Brighton analysis of 282 inhalers shows that:  
  - 2 out of 10 inhalers were empty \( n=61, 22\% \)  
  - 5 out of 10 inhalers were partially used \( n=123, 43\% \)  
  - 3 out of 10 were full \( n=98, 35\% \)  
  
  Total carbon saved from recovering propellant (kg) 2867

Second audit

- Brighton Analysis of 713 inhalers shows that:  
  - 4 out of 10 inhalers were empty \( n=271, 38\% \)  
  - 4 out of 10 were partially used \( n=296, 41\% \)  
  - 2 out of 10 were full \( n=146, 21\% \)  
  
  Total carbon saved from recovering propellant (kg) 4879

Final audit

- Brighton Analysis of 730 inhalers showed that:  
  - 4 out of 10 inhalers were empty \( n=296, 40\% \)  
  - 4 out of 10 were partially used \( n=305, 42\% \)  
  - 2 out of 10 were full \( n=129, 18\% \)  
  
  Total carbon saved from recovering propellant (kg) 4308
Lessons learnt: That it may be possible to reduce waste and to make carbon savings with partnership working

Message for others: Joint Working arrangements between healthcare organisations and the pharmaceutical industry can lead to a greater understanding of a situation which can help with planning for the future.

References
1. Complete the Cycle NHS Brighton inhaler analysis September 2015 UK/RESP/0093/15e
2. Complete the Cycle NHS Brighton Inhaler analysis March 2016 UK/RESP/0093/15h
3. Complete the Cycle NHS Brighton inhaler analysis August 2016 UK/RESP/0093/15(1)a