

# BTS Paediatric Asthma Audit

- Improving discharge planning to reduce mortality -

Wright S<sup>1</sup>, Weeks C<sup>2</sup>, Wattley S<sup>2</sup>, Lodge D<sup>3</sup>

<sup>1</sup> Paediatric ST4, <sup>2</sup> Paediatric ST1, <sup>3</sup> Respiratory ST4  
Poole Hospital NHS Foundation Trust

## Introduction

Asthma is the most common chronic paediatric condition, with 1 in 11 children having the diagnosis in the UK.<sup>1</sup> Over 1200 people die of asthma each year and, despite medical advances, this number has not fallen.<sup>2</sup>

The National Review of Asthma Deaths (NRAD) found that 72-80% of the 28 children who died during an asthma attack in 2012 did so *before* reaching hospital and only 4/28 had a written asthma plan.<sup>2</sup>

Aim: To review asthma management locally vs. nationally, driving improvements in the quality of patient care.

## Methods

Hospital coding was used to identify children over 12 months old who were admitted for more than 4 hours with a primary diagnosis of asthma/wheeze during November 2015.

Medical notes were analysed using the British Thoracic Society (BTS) data collection tool. Readmissions were analysed after 3 months.

BTS Asthma Guidelines 2014<sup>3</sup> were used as the Gold Standard and the results compared to the local 2013 audit and national BTS audit 2016. Four key areas included:

1. Demographics
2. Initial Treatment
3. Discharge Plan
4. Follow Up

## Results

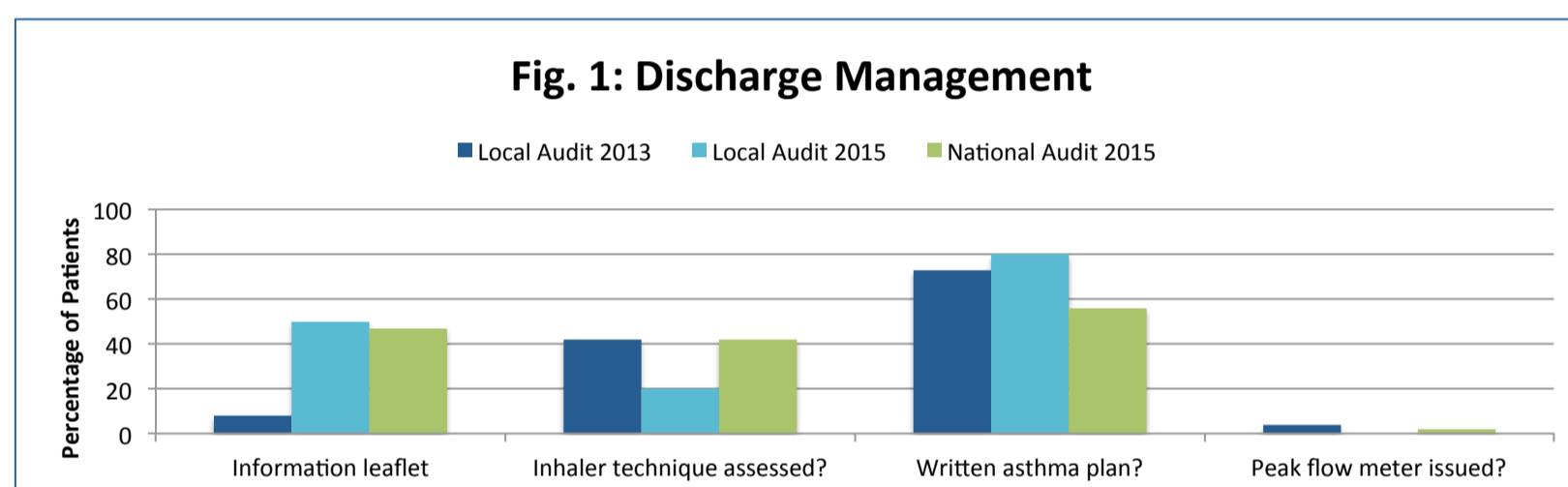
### DEMOGRAPHICS & INITIAL TREATMENT

Data was collected from 44 patients locally as part of the national BTS audit (5545 patients from 154 hospitals) and compared to these results. Demographics, initial treatment and readmission rates were similar to national data.

BTS Audit Year	No. of Hospitals	No. of Patients
2010	97	2164
2011	127	3195
2013	148	4263
2015	154	5545

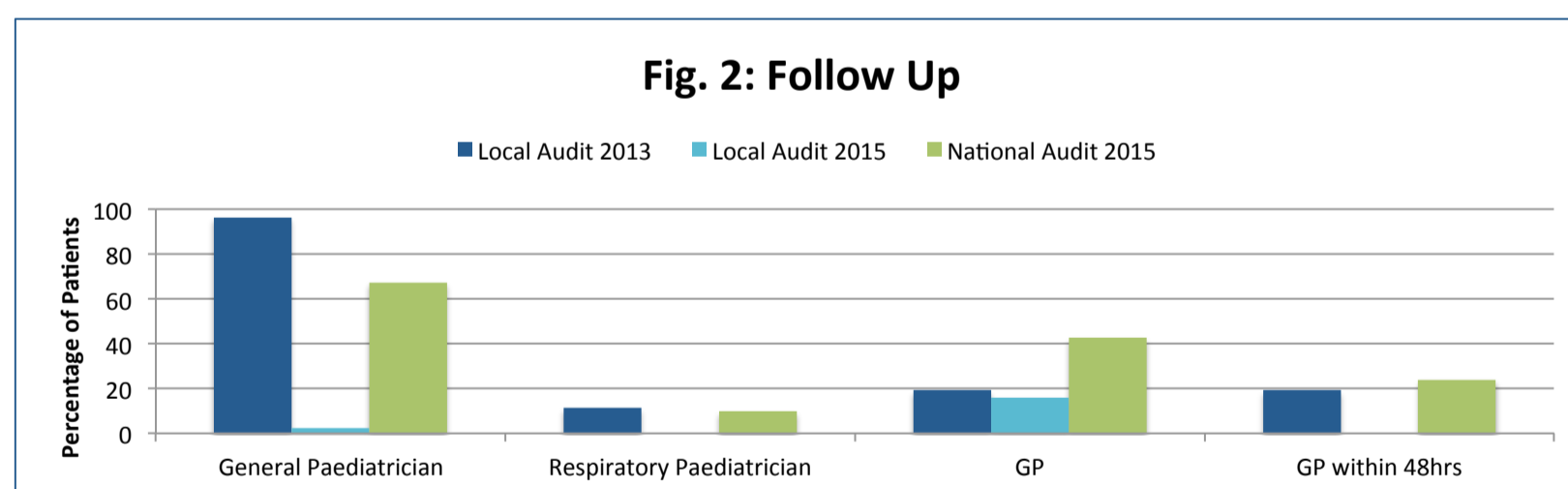
### DISCHARGE PLANNING

On discharge locally (Fig. 1), 50% (47% nationally) received an information leaflet, 20% (42%) had their device technique checked and 80% (56%) had a written asthma plan.



### FOLLOW UP:

Local follow up (Fig. 2) showed 2.3% (67.3% nationally) were discharged under the care of a General Paediatrician, with 0% (10%) referred to a Respiratory Paediatrician. GP follow-up was advised for 15.9% (38.1% nationally) of patients, with 0% (23.9%) of GP follow-up specified to be within 48hrs.



## Conclusion & Changes to Practice

Similar to 2013 audit data, discharge planning remained substandard and asthma plans, although used, did not meet all the key recommendations from NRAD. The study was limited by the lack of symptom severity in the cohort analysed and the quality of medical documentation in patient notes.

Subsequently, Discharge Planning Prompt Sheets (Fig. 3) have been devised, based on BTS/SIGN gold standards, alongside the introduction of written asthma plans which meet the specified NRAD criteria. Re-audit is planned for 2017.

**Asthma/Wheeze Discharge Planning**  
BTS National Guidelines 2014

Patient Sticker:   
Date:

1. Device Technique assessed?
2. Written Asthma Management Plan?
3. Asthma Information Leaflet?
4. Peak Flow Meter issued/at home?
5. Change in prophylactic treatment?  
If yes, details: .....
6. Follow up:
  1. GP
  2. Paediatrician
  3. Respiratory Paediatrician
7. Advised to see GP within 48hrs of discharge?

Fig. 3: Discharge Planning Prompt Sheet



## References

1. Asthma UK: [www.asthma.org.uk/about/media/facts-and-statistics](http://www.asthma.org.uk/about/media/facts-and-statistics)
2. Royal College of Physicians: National Review of Asthma Deaths 2014.
3. BTS/SIGN: British Guideline on the Management of Asthma; October 2014.