

contacted to advise of the attendance. Following discussion with the consultant it was recommended that 11 (42%) continued to be managed in primary care (follow-up attendance unknown), and 15 (58%) be reviewed by the Respiratory Service. 13 (86%) attended the appointment.

62 (70%) were contactable, one was a nursing home resident (Respiratory nurses subsequently visited), one declined to answer questions. 35 (39%) had already made an appointment to see their general practitioner. Following discussion one patient was re-admitted (same day), 30 (48%) patients continued to be managed in primary care (follow-up attendance unknown) and 31 (50%) were reviewed by the Respiratory service. 27 (87%) attended the appointment.

**Conclusions** The introduction of a telephone conversation/management plan improves follow-up of patients with asthma exacerbations discharged from A&E.

### M7 DESIGNING AROUND PLACEBO INHALER DEVICE CONCERNS AND IMPROVING ASTHMA HEALTHCARE PROFESSIONAL PATIENT TRAINING

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10.1136/thoraxjnl-2016-209333.449

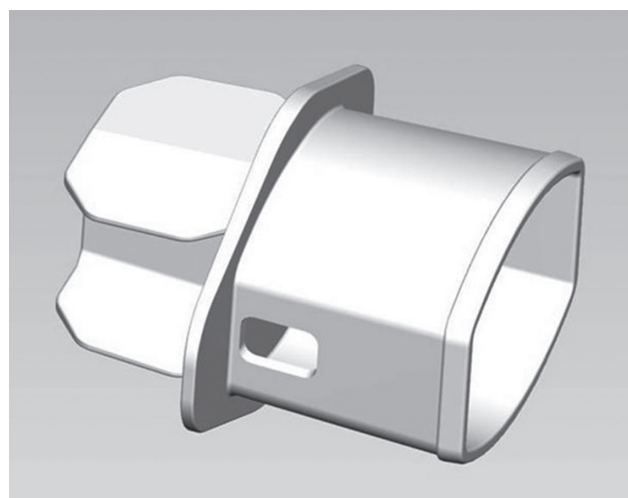
**Introduction** Effective asthma control with drug therapy delivered via pressurised metered dose inhalers (pMDIs) is critically dependent on good inhaler technique. Healthcare professionals (HCPs) dedicate significant time and resources to patient education and review sessions, which tend to focus on the co-ordination of pMDI actuation with the slow inspiratory breath. Tools exist to facilitate this experience: dummy pMDIs, add-on devices which whistle at the ideal inspiratory flow rate and the highly valued but difficult-to-obtain placebo pMDIs. The latter currently offer the closest real-life training experience but are hampered by the multiple-use concerns of cross-infection (or confident decontamination), HCP-only demonstration, and unnecessary exposure to fluorocarbon propellants. The alternative of training with the active pMDI raises the issues of overdosing and drug wastage.

**Methods** Our self-imposed project brief was to design an improved low-cost solution to the placebo/drug pMDI training conundrum which included patient participation as an absolute, the ability of the HCP to visually assess technique, avoidance of contamination, and compatibility with different actuator formats; and specifically excluded, for example, validation and implementation of new decontamination techniques.

**Results** The solution is an add-on device, confirmed to fit all UK active and placebo pMDIs. The device (Figure 1, Flo-Check<sup>®</sup>) is inserted into the pMDI actuator mouthpiece orifice and completely occludes the aerosol path. The lip-guard feature prevents mouth-contact contamination of the actuator and, when the patient inhales, inspiratory air is drawn in via side vents engineered to mimic the general resistance of a pMDI.

**Conclusions** A survey of manufacturer-supplied respiratory support devices in relation to all UK inhaled products (London Medicines Evaluation Network, 2013) revealed an almost universal lack of product specific devices with the exception of the Accuhaler<sup>®</sup> (Glaxo Group Limited) and Symbicort<sup>®</sup> (AstraZeneca AB) training whistles; neither of which addresses the issues raised above. Several specific placebo pMDIs are available but the pharmaceutical industry is cognizant of fluorocarbon use justification, the danger of misinterpretation as an active product, and manufacturing a low volume high unit-cost product. It is hoped that

developments such as the Flo-Check address some of the issues: for manufacturer, patient and HCP.



Abstract M7 Figure 1 Flo-Check device

### M8 ASTHMA MANAGEMENT IN AN INNER-CITY TEACHING HOSPITAL EMERGENCY DEPARTMENT: REAL-LIFE AFTER NATIONAL REVIEW OF ASTHMA DEATHS (NRAD)

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10.1136/thoraxjnl-2016-209333.450

**Background** The National Review of Asthma Deaths (NRAD) made multiple recommendations in the form of quality indicators linked to improving care of asthma patients in light of a review of all asthma deaths.<sup>1</sup> We undertook an audit to establish the degree to which a busy Emergency Department in inner London adheres to these.

**Method** Patients admitted in the month of June 2015 with an asthma related admission were identified via the coding department. This list was reviewed to include those patients confirmed to have an acute asthma admission and seen and discharged directly from the ED department (including the short stay ED ward). The electronic records of those included were reviewed using a data collection form relating to the NRAD quality indicators.

**Results** A total of 42 patients were included. Our findings included the following: 83% had mild or moderate severity, the remainder having acute-severe. Almost one third of patients did not have their peak flow documented on arrival, 76% did not have their usual best or predicted best documented and 66% did not have a discharge peak flow documented. There was no documentation if any patient had been provided with a personal asthma action plan (PAAP). Checking of inhaler technique was only documented for 14% of patients. One third of patients were presenting for the 2nd or more time with acute asthma. Finally only 3 patients had a recommendation for GP follow up but no timeframe was suggested.

**Discussion** Simple measurements and interventions were omitted in a significant number of patients, highlighting the need for improvement. Some of these were straightforward such as more meticulous recording of peak flow. Others may have reflected lack of competency in the healthcare professional e.g. inhaler