Identifying barriers and facilitators to improve prehospital care of asthma

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Context
• The National Ambulance Services Clinical Quality Group is responsible for benchmarking and driving improvement in the quality of clinical care provided by front line ambulance staff (paramedics and ambulance clinicians) across all twelve ambulance services in England.

Problem
• 2008/09 there were nearly 80,000 emergency hospital admissions for asthma.1
• Current UK guidelines emphasise the importance of evidence-based prehospital assessment and treatment of asthma for improving patient outcomes and reducing hospitalisation, morbidity and mortality.2
• National benchmarking of ambulance clinical performance indicators for asthma, with performance analysed using funnel plots, revealed important unexplained variations in care across ambulance services.

Primary themes
A number of preliminary themes were identified:

• perceptions and beliefs of paramedics on the management of asthma,
• barriers and facilitators to following asthma guidelines,
• measures to improve prehospital asthma care and pathways.

Study design
• We used a phenomenological qualitative approach focusing on participants’ lived experiences of care delivery for asthma.
• We used focus groups of ambulance clinicians to gather data on barriers and facilitators to better asthma care.
• Recordings and notes were taken, transcribed and then analysed using QSR NVivo 8.
• A coding framework was developed based on a priori concepts but with emergent themes added during the analysis.

Results
Ambulance clinicians believed that asthma guidelines were usually followed with the exception of PEFR recording.

‘The guidelines seem to be more set for hospitals than anything else. And being out on the road... we haven’t got 6 people to go round grabbing pieces of kit to help us out...’

Ambulance guidelines and training were seen as barriers to pre-treatment assessment as the emphasis is on correcting breathing difficulties before carrying out other assessments.

‘...if we do the peak flow prior to... we are withholding treatment really so that isn’t a priority for us. It’s the airway and breathing that is...’

Pre-treatment objective assessments were not seen as a priority where airway or breathing difficulty was apparent and where these were not thought to affect patient outcome.

‘...we only have them [SpO2 monitors] connected to our Lifepak® 12 monitors...’, ‘...But if you’ve got the SpO2 in the bag you can put that on at the same time as giving the oxygen. Get a reading prior to the oxygen...’

Blood oxygen measurement was more likely to be carried out where equipment was readily to hand.

‘But that shouldn’t be a problem [patient unable to give a peak flow] with the recording because you should put “not able to record” on that.’, ‘I would think that’s where we’ve been let down.’

Reasons for not carrying out objective assessment were not always recorded.

‘We can refer a fall to social services...who will go out and assess. We need to have that backup from respiratory nurses in terms of asthma.’

Effect of changes
Our findings will inform system interventions to address current deficiencies in care. Improvements will be measured using control charts.

Lessons learnt
Important barriers to improving care are often not evident without involving front line clinicians, gathering information from them in order to understand the issues affecting care delivery from their perspective. Perceptions and beliefs held by ambulance clinicians for asthma management need to be addressed in order to change practice. Ambulance training and guidelines need to reinforce the reasons for taking objective assessments, reinforcing the place of pre-treatment assessment in the overall patient journey and highlighting the dangers of over reliance on non-objective assessment.

Messages for others
Detailed analysis of barriers and facilitators is an important precursor to real, sustained and systematic improvements in care.