Background Our community paediatrics service serves a diverse inner-city population of approximately 70,000 children and young people, with high rates of deprivation. During the COVID-19 pandemic, we shifted rapidly from face-to-face assessments to video assessments, with unknown implications on quality of care. Lack of guidelines and preventable technical problems led to incomplete assessments and precious time wasted. This could lead to adverse health, developmental, educational and long-term social outcomes.

Objectives By June 2020, to reduce avoidable technical problems with video clinics from 100% to less than 20%, in order to minimise time wasted, improve quality of video assessments, patient safety and satisfaction.

Methods All staff were trained to use video consultations by virtual workshops, online demonstration, one-to-one troubleshooting and practice runs (NHS England Attend Anywhere platform, 2020). We engaged stakeholders through regular online Skype Huddles, email and Whatsapp updates to ensure ongoing dynamic learning, ensure clear communication and discuss improvement strategies.

Our primary measure was the number of preventable technical problems (e.g. patient not receiving instructions, child moving camera, interpreter not booked). Outcome measures included patient outcomes following video consultations (discharge or follow up required), qualitative patient satisfaction feedback and clinician reported quality of consultation – satisfactory (yes/partly/no). The number of ‘Did not Attend’ episodes (DNAs) was a balancing measure.

Results Team Skype meetings and plan-do-study-act (PDSA) cycles shared learning from video consultations. In April 2020, we reviewed 188 patients (69% by video, 31% by telephone), increasing to 267 (82% by video, 18% by telephone) in May 2020, showing a sustained increase in number of video consultations. Avoidable technical problems reduced from 100% to 20% from March to mid-April, which was sustained. We were able to discharge 44% of patients following their initial video consultation, the others requiring follow up in specialty clinics or face-to-face follow-up to complete the assessment. Clinician feedback was encouraging; 55% of consultations were fully satisfactory, 35% partly (unable to examine child, poor internet connection, time consuming) and 10% were not satisfactory. Over 2/3 of patients preferred having a video consultation to face-to-face and the majority were thankful for contact, discussion and plans made. Qualitative patient feedback included: ‘This conversation is amazing, we were able to address a lot of issues despite being a video consultation.’ Some patients who forgot about the appointment were still contactable by phone and able to engage with the video consultation, due to the flexibility conferred by remote consultations. However, the overall rate of DNAs doubled from 7% in April/May 2019 to 14% in April/May 2020. This is likely due to initial challenges with instructions and accessibility of video consultations to our high number of vulnerable families, experiencing digital poverty, learning difficulties or language barriers.

Conclusions The pandemic has brought dramatic changes to all our lives and accelerated the need for development in video consultations, which will remain an integral part of our service. Quality improvement is effective in optimising video consultation compared to telephone. Further work is required to better understand and manage accessibility and risk of video consultations, as well as virtual multidisciplinary working.

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IMPROVING THE CARE OF CHILDREN PRESENTING TO THE EMERGENCY DEPARTMENT (ED) WITH A WHEEZE EXACERBATION- A QUALITY IMPROVEMENT PROGRAMME

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Background Wheeze is a common reason for children to present to the Emergency Department (ED). Management is directed by the 2019 British Thoracic Society and Scottish Intercollegiate Guideline Network (BTS/SIGN) 2019 national guideline. However, adherence to the guideline has been shown to be suboptimal. Suboptimal care is a preventable factor which, if addressed, can reduce the incidence of future exacerbations and in turn can potentially reduce ED visits.

Objectives The project aimed to (1) assess the current adherence to the guideline within a busy paediatric ED, (2) introduce iterative quality improvement (QI) measures to address areas of poor adherence, and (3) establish the impact of these measures on quality of care.

Methods Retrospective data was collected from 75 consecutive patients presenting to the ED at Southampton Children's Hospital and management analysed against the BTS/SIGN guideline. Multiple QI interventions were then employed with education sessions at the senior team and departmental team teaching, and a newly devised wheeze proforma forming the core of the programme. Subsequently, the care received by 70 consecutive patients was studied to establish the efficacy of the QI programme.

Results Initial data collection established that only 14% (3/21) of audited components of the guideline had full adherence. Following the QI programme, 39% (7/18) of non-compliant components showed statistically significant improvements including provision of a Personal Asthma Action Plan ($p=0.001$), assessment of medication adherence ($p=0.036$), discussion of triggers ($p<0.001$), assessment of parent/carer tobacco dependency status ($p<0.001$) and assessment of patient tobacco dependency status ($p=0.022$). Aspects that did not show significant improvement after the QI programme included administration of Beta-2 agonists within an hour ($p=1.000$), administration of steroids within 2 hours ($p=0.753$), inhaler technique checks ($p=0.282$), and the booking of asthma clinic follow ups ($p=0.777$).

Following the QIP introduction, the proforma was utilised in 60% of admissions. In patients where the proforma formed part of the QI strategy, 28% (5/18) of non-compliant components showed statistically significant improvements compared to those patients with no proforma. This included inhaler technique checks ($p=0.027$), assessment of triggers ($p<0.001$), assessment of medication adherence ($p=0.028$), recording of the severity of the exacerbation ($p<0.001$), and assessment of parent/carer tobacco dependency status ($p=0.001$).

Conclusions The introduction of a focussed QI programme resulted in significant improvements in adherence to the national asthma/wheeze guideline through reinforced education. A bespoke proforma proved an essential part of the programme. The proforma has been updated after feedback received, but at present further PDSA cycles are needed to show sustained change. Several important outcomes were not impacted and will be targeted in future QI cycles.