each year, for children aged <15 years, admitted to hospital with severe complications of laboratory proven influenza.

Results A total of 489 cases were reported: median age=3 years (0–14.8) and 56.5% were boys. Most 338 (69%) had influenza A. Complications included pneumonia (61.2%), encephalitis (13.3%), myocarditis/pericarditis (3.7%), shock (3.9%), rhabdomyolysis (3.9%). Viral or bacterial co-infections were reported in 18%. Of the 489 children 24 (5.3%) were vaccinated for influenza and of 174 of children who had chronic conditions pre-disposing for influenza 15 (8.2%) were vaccinated. There were 21 deaths. Deaths occurred in each year of surveillance except for 2016, and in 52.3% the children had a pre-existing condition (e.g.rare genetic syndromes, cerebral palsy, ulcerative colitis), but 47.6% of children that died were previously healthy. Given that almost half of the children who died were previously healthy, there is a need for rapid diagnosis and treatment of children with severe complications of influenza, and all children should be vaccinated for influenza, not just those who have underlying chronic conditions.

Conclusions Awareness raising and education about early diagnosis and treatment in addition to increasing annual influenza vaccination is neded among health professionals caring for children children whether or not the children have pre-disposing medical conditions. Ongoing surveillance is needed to monitor the effectivenes of vaccination programmes to prvent these seious outcomes of influenza infection in children.

P7 STANDARDISED PROCEDURE TROLLIES SAVE TIME AND STRESS – A QI PROJECT

D Maxted, A Dewar, M Moran. *Department of Paediatrics, Nottingham Children's Hospital, Nottingham University Hospitals NHS Trust, Nottingham, UK*

10.1136/archdischild-2018-rcpch.7

Introduction Basic procedures such as phlebotomy and cannulation are commonly performed in children admitted to hospital by junior doctors. In our tertiary teaching hospital, children are admitted to one of seven wards after initially been seen on the admission unit. Out of hours junior doctors cover a number of wards, often attending wards not worked on in-hours. We highlighted a problem that finding equipment was frequently proving difficult and an in-effective use of time; partly due to varying equipment locations on each ward. We set out to streamline the process by using a standardised procedure trolley.

Methods We surveyed junior doctors to identify equipment that would be used frequently enough to form our prototype trolley. We then timed junior doctors finding a list of equipment using the prototype trolley, and without the trolley on a ward they were familiar working on and on a ward they haven't been before. Following this we agreed with ward managers to roll out the standard trolley to five wards.

Results Junior doctors on unfamiliar wards found the required equipment after an average of 10 min 13 s (6 min 28–15 m 26). On a familiar ward this reduced to 5 min 31 s (2 m 49–9 m 18). Using our prototype trolley the average reduced further to 1 min 35 s (1 m 24–1 m 46). On our unit, 30 procedures were carried out in 24 hours; over 200 in a week. Reducing the average time from 8 min 17 s (combing unfamiliar and familiar results) to 1 min 35 s would save 6 min 42 s per procedure. This would result in over 20 hours of junior doctor time saved in a single week. Post roll out audit found 3 to be well stocked, 1 to be adequately stocked and 1 poorly stocked. This correlates with our survey of doctors; just over a third felt trollies didn't have enough equipment stocked on it. 94% felt the trollies saves time when stocked!

Conclusions We highlighted a problem with undertaking a common procedure in our patients. We designed a solution, tested its efficacy and engaged stakeholders in its implementation. We have shown how a simple solution could save over 20 hours of junior doctor time a week, improving not only patient care but junior doctor satisfaction.

P8 BONE MINERAL DENSITY IN CHILDREN AND ADOLESCENTS WITH CYSTIC FIBROSIS, SHOULD WE BE DOING LESS MONITORING?

[1]CF O'Toole, [2,3]A Bush, [2,3]SB Carr. *[1]Sixth Form, Royal Grammar School, Guildford, UK; [2]Department of Paediatrics, Imperial College, London, UK; [3]Department of Paediatrics, Royal Brompton Hospital, London, UK*

10.1136/archdischild-2018-rcpch.8

Background Cystic fibrosis (CF) is a multi-system disease resulting from mutations in the *CFTR* gene. CF patients are at risk of developing osteopenia. Regular monitoring of bone mineral density (BMD) is currently recommended in the standards of care for CF.

Aims

- To explore the extent of low BMD in children with CF and identify risk factors associated with decreased BMD.
- Establish the rate of decline in BMD to inform future practice.

Methods All children undergo routine DEXA scan at bi-annual assessments from 8 years of age. A single centre retrospective review of CF Registry records and online hospital records was conducted for children born 2000–2006. Z-score values were obtained for BMD and BMI as well as FEV_1%/FVC% predicted (GLI), and possible confounding factors were also recorded.

Abstract P8 Table 1

DEXA sequence	Scan 1	Scan 2	Scan 3	Scan 4	ANOVA sig.
Number	96	87	60	18	
Age in years (Mean,SD)	9.98 (1.9)	11.79 (1.8)	13.24 (1.5)	14.34 (1.5)	
M/F	37/59	33/54	25/35	8/10	
L1-L4	−0.12	−0.37	−0.42	−0.96	0.008
L2	−0.27	−0.48	−0.59	−1.13	0.013
FEV1%	86%	83%	80%	78%	0.174
BMI Z-Score	−0.03	−0.05	0.04	0.18	0.844
Vit-D	72	69	71	78	0.577

Results 96 children (59 female) had a first DEXA scan at a mean age of 10 (±1.94 years). 262 DEXA scans were performed with a median of 2 per individual. Thirteen (13.5%) had an abnormal DEXA scan over the course of the study; only 2 of these were age <10 years (n=48 performed in this age range). Risk factors for abnormal BMD (z-score ≤−2) were: a BMI z-score ≤2;>50 days of intravenous antibiotics in the year before the scan; and FEV_1%<50. The table shows