

(34.2%), Cat (51.7%), Dog (50.8%) and cockroaches, *Blatella germanica* (48.3 8%) and *Periplaneta Americana* (53.3%). Overall, multiple sensitization (sensitization to >4 allergens) was significantly associated with increasing level of asthma severity ( $p < 0.001$ ). However, that association disappeared after adjustment for potential confounders like age, sex, exposure to smoking, pet and having family history of asthma or allergic rhinitis. It remained statistically significant only for the patients sensitized to HDM as the relationship was not modified by con founders. Moreover, mean SPT wheal size was not significantly associated with severity of asthma for all allergens tested.

**Conclusions** HDM was the most common sensitizing aeroallergen. Although children with moderate to severe asthma had significantly higher proportion of SPT positive, this study could not establish any relationship between degree of wheal size and severity of asthma. Therefore, the association between degree of sensitivity to indoor allergen and childhood asthma severity is still uncertain.

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#### DIAGNOSTIC DIFFICULTY DURING COVID 19 PANDEMIC-SICKLE CELL CRISIS OR PIMS-TS?

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**Background** The following case report highlights the difficulty in distinguishing Paediatric Multisystem Inflammatory Syndrome Temporally Associated with Sars- CoV- 2 (PIMS -TS) from sickle cell crisis. This is important in the context of a looming second wave of the Covid 19 pandemic, particularly in areas where there is a large population of children with sickle cell disease. This is the first case report discussing PIMS TS in a child with sickle cell disease and pulmonary emboli as a result of this.

**Objectives** A 17 year old boy with sickle cell disease presented to the paediatric department of a district general hospital in South London with pleuritic chest pain and worsening shortness of breath in April 2020. He was tachypnoeic and tachycardic. Oxygen saturation was 95% in air and he was afebrile. He had quiet breath sounds and was tender in the right upper quadrant of his abdomen. A week prior to this he required intravenous (IV) antibiotics and two exchange transfusions via a femoral line. Blood tests showed a white cell count (WCC) of 11.4, a C-reactive protein (CRP) of 120, haemoglobin of 108, INR of 1.6 and deranged liver function tests. His D dimer was 8339, so a pulmonary Computed Tomography (CT) angiogram was performed. This demonstrated bilateral pulmonary emboli (PE).

#### Methods

**Results** Differential diagnoses for the cause of the PE were sickle cell disease and PIMS-TS.

**Conclusions** Both PIMS -TS and sickle cell crises are disorders involving exaggerated inflammation and risk of coagulopathy, with raised CRP, D Dimer, INR and WCC. The guidelines for investigations of PIMS TS include other markers such as LDH, troponin, BNP, ferritin and creatinine kinase. However, these blood tests are rarely performed in the general paediatric population or those with sickle cell disease, so they need to be specifically studied to determine whether they provide any significant distinction for a diagnosis of PIMS-TS.

In terms of pathophysiology, a diagnosis of PE as a complication of sickle cell is not surprising; however in clinical practice it is rarely seen. This points towards PIMS-TS being the cause of this presentation, for which WHO definition requires evidence of SARSCOV2 infection or exposure. Indeed our patient is likely to have been exposed to Covid 19, given that he presented in the peak of the first wave, however PCR swabs were negative during admission. Three months after presentation, his anti Sars Cov 2 IgG was negative.

The key take home message from this case is to consider other diagnoses in sickle cell patients during the time of Covid 19. There is a need for increased research into how to differentiate the two disorders. This is important because if the primary cause of illness is PIMS-TS rather than sickle cell disease, careful consideration needs to go into treatments as immunomodulation with IV Ig may increase viscosity and steroids can contribute to hypertension, thus worsening the progression of underlying sickle cell disease. Diagnosing PIMS -TS in those with sickle cell is particularly important as patients from a minority ethnic suffer worse outcomes.

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#### ENHANCING LEARNING AND IMPROVING FEEDBACK THROUGH QR CODES

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**Background** North Middlesex University Hospital is a District General Hospital based in Central London and has recently developed a weekly ED simulation programme as part of specialty training. The simulation programme is run by a simulation fellow and ED consultant and aims to improve trainees' confidence in core ED competencies including trauma and paediatric emergencies. It is recognised that there are difficulties in obtaining accurate and complete feedback from participants due to time constraints i.e. need to return to clinical work; because traditional methods of collecting feedback via paper forms are cumbersome and has an environmental impact with paper wastage, or feedback is lost through illegible writing. To improve the collection of feedback, we created a standardised online feedback form which participants access via a QR code using their mobile phones, and can be filled in quickly and accurately. This process will soon be rolled out to the entire hospital as the standardised method of collecting feedback from simulation sessions.

#### Objectives

1. To improve the collection of feedback after simulation sessions, such that the simulation team is better able to capture feedback from all participants and analyse a complete set of data.
2. To improve data analysis with electronic record by reducing human errors in transcribing feedback from paper forms during analysis.
3. To standardise the feedback collection process in the hospital.
4. Reduce paper wastage and become more environmentally friendly.

**Methods** Participants scan a QR code that is made available at the start and end of the simulation sessions which directs them to a short online feedback form where they can fill in feedback anonymously.

**Results** There is an average of 83% feedback response rate from the simulation sessions conducted between Sept 2020 to