

Management of children with clinically suspected and confirmed SARS-CoV2 during the first wave in the West Midlands, United Kingdom

Paediatric Research Across the Midlands (PRAM) Network

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5. The Royal Wolverhampton NHS Trust
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8. Shrewsbury and Telford NHS Trust
9. Universal Hospital Coventry and Warwickshire NHS Trust

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No conflict of interest declared

Background

During the first wave of SARS-CoV2 in England, there was initially limited availability of confirmatory PCR for diagnosis, meaning clinical algorithms were used.¹

Aims

We describe the management of children with suspected and confirmed COVID-19 in non-tertiary hospitals in the West Midland region during the first wave of the UK epidemic.

Methodology

Sample Period: 1st March'20 - 31st July'20

Eligibility Criteria:

- Children (<16-years old)
- Admitted to hospital paediatric wards.
- Suspected SARS-CoV2 or
- Positive swab

Suspected cases: fever ± respiratory or gastrointestinal symptoms, unexplained skin rash, or strong clinical suspicion of SARS-CoV2

Relevant Sample Size: All eligible patients across 9 hospital sites

Data Collection: Retrospective & prospective review of electronic and hard copy patient management systems & notes

Validation: Use of standardised pro-forma on Microsoft Excel and REDCap.

Exclusion Criteria: Patients who had alternative confirmed diagnosis on admission.

Demographics

621 children were included (Fig1).
SARS-CoV2 swabs taken in 566 (91%); 46 (7.4%) were positive.
26% had pre-existing co-morbidities
Median duration of admission was 2 days.

Investigations Performed

Chest radiograph	402(65%)	201(50%) normal
Blood cultures	276(44%)	268(97%) negative
Full blood count	373(60%)	
Viral resp screen	186(30%)	
Urine culture	138(22%)	

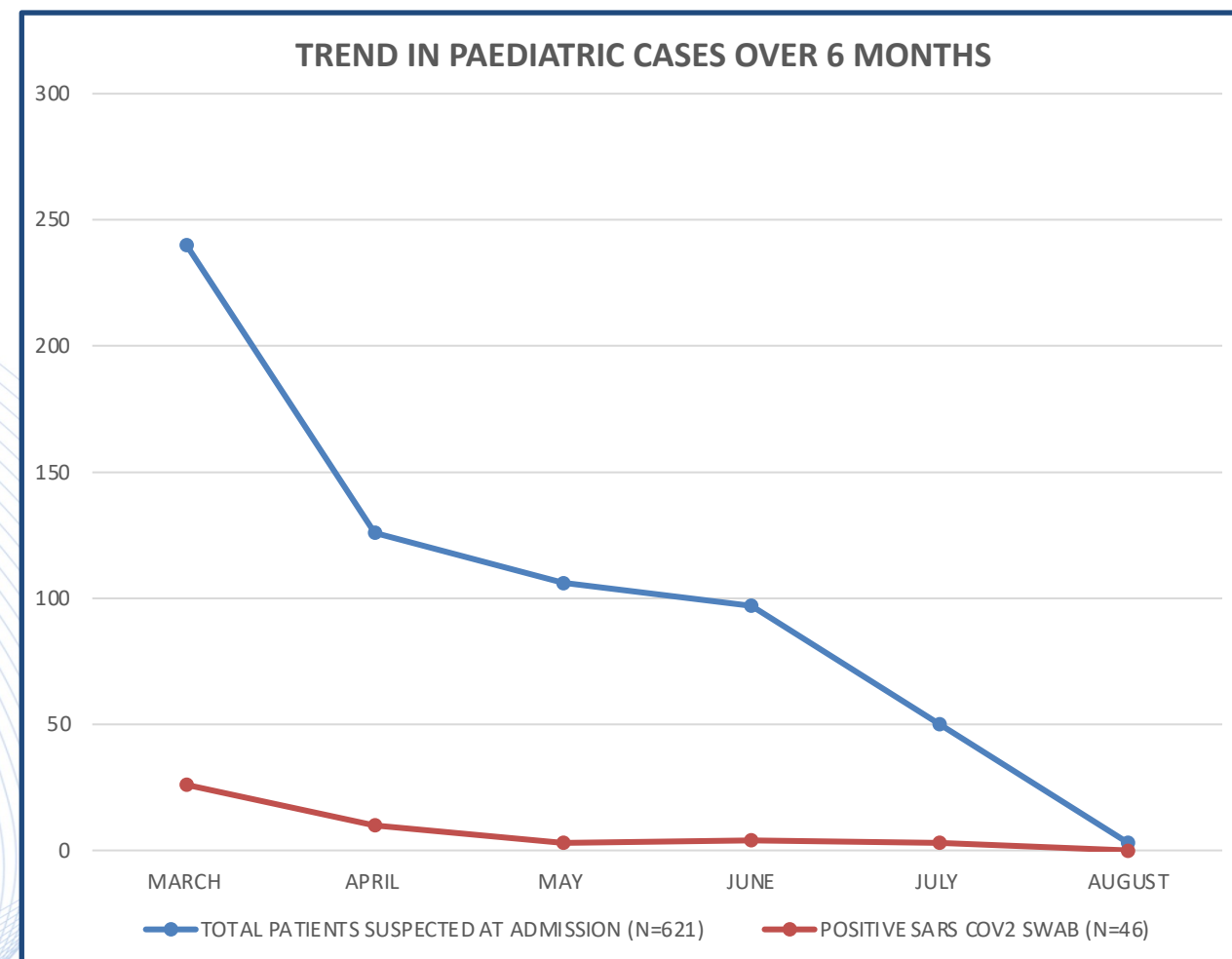
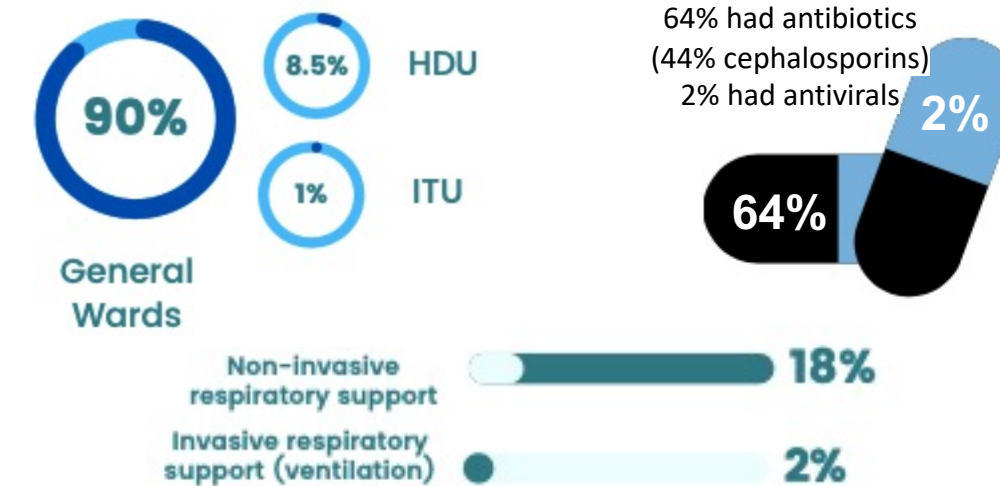


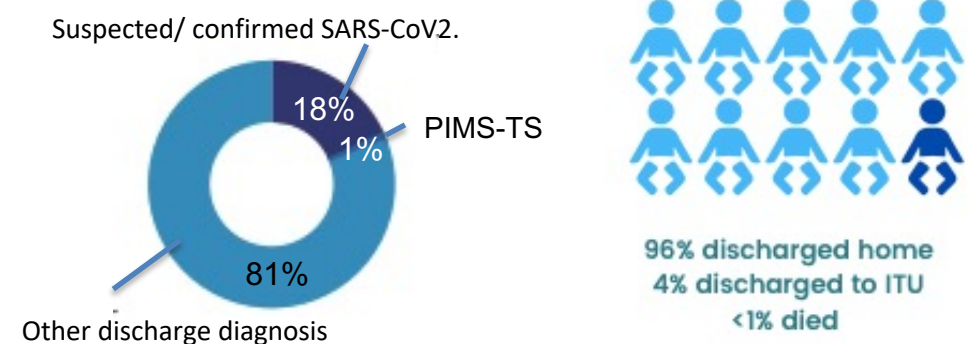
Figure 1- TREND IN SUSPECTED AND SARS COV2 CONFIRMED PAEDIATRIC CASES OVER 6 MONTHS

Management and Outcomes

Admission and Management



Discharge



Conclusions

- Clinicians had a high level of suspicion of SARS-CoV2 infection at the beginning of the first wave.
- Majority of the initially clinically-suspected children were negative.
- The number of both PCR-confirmed and clinical diagnoses decreased over time.
- High rates of investigations e.g. radiographs, and antibiotic use were observed, despite few confirmed bacterial infections.