TITLE:
Epidemiology, severity and outcomes of children presenting to emergency departments across Europe during the SARS-CoV-2 pandemic – the EPISODES study

CHIEF INVESTIGATOR:
Ruud G. Nijman, r.nijman@imperial.ac.uk, Faculty of Medicine, Department of Infectious Diseases, Section of Paediatric Infectious Diseases, Imperial College London, UK

On behalf of the EPISODES study steering group, and in collaboration with the European Society of Emergency Medicine and the Research in European Paediatric Emergency Medicine network.

DESIGN
Retrospective analysis of aggregated routinely collected and anonymous clinical data from (paediatric) emergency departments across Europe

AIMS
We aim to describe current patterns of children presenting to (paediatric) emergency departments across Europe during the SARS-CoV-2 pandemic, and compare these with historical data, to understand the timeliness of their presentations in relation to the disease severity, and to monitor for emerging disease entities.

OUTCOME MEASURES
Primary outcome measure:
- Absolute numbers of children presenting to paediatric emergency department; for all children and children with different typologies

Secondary outcome measures:
- Severity of illness as defined by: 1) percentage of children with abnormal vital signs, 2) high triage urgency, 3) a composite outcome of: need for emergency medications, need for hospital admission >24 hours, PICU, and death.
- Change of incidence of children with specific diagnoses of interest and the severity of their presentation as a proxy for timeliness of presentations.

POPULATION
All children presenting to the emergency department, aged 0 – <18 years, for unscheduled health care [Upper age band can vary per institution]

- That undergo a formal clinical assessment by advanced nurse practitioner (or equivalent) or clinician in the emergency department
- With data on triage, vital signs, consultation, diagnostics, treatment, working diagnosis and disposition routinely documented in electronic patient records

PERIOD
January 2018 – May 2020

DATA COLLECTION
Aggregated, retrospective, and anonymous data will be collected using a standardized clinical report form based on automated data extraction from local health records; data will be entered using the validated online data entry software Redcap for every month, or every week for the period starting February 2020.

Each participating institution will be asked to complete a survey on hospital factors and the local delivery of emergency care, as well as outlining changes to the local healthcare pathways during the SARS-CoV-2 pandemic

ETHICS
No patient informed consent is required for this study. This study should be registered locally, and a data sharing agreement will be put in place.

MAIN SPONSOR: Imperial College London
STUDY COORDINATION CENTRE: Imperial College London
IRAS Project ID: 284008
FUNDERS: not externally funded