Aims Good medical leadership is vital in delivering high-quality healthcare although it hasn’t been particularly prominent in the curricula of medical students and doctors. Lord Darzi’s review of healthcare within England highlighted clinical leadership as a vital element within healthcare (1). ‘Mapping the Future’, a London Specialty School of Paediatrics project in 2014, highlighted that trainees do not feel prepared for the non-clinical aspects of the consultancy role (2).

To improve clinical leadership, Leadership, Management & Education (LME) teaching sessions have been running in our department with minimal success due to various factors. The aim of this project is to increase attendance of the paediatric trainees at LME teaching sessions from less than a quarter to more than a half by end of August 2021.

Methods It is a quality improvement project over 6 months including a high-level process map, fishbone diagram, histogram analysis and PDSA Cycles to measure the improvement demonstrated in figure 1.

I collected trainee details, created group email and welcomed them to LME teaching to advertise upcoming sessions. I then set up groups on social media platforms to send invitation through various group chats to all senior trainees with a reminder before each session. Additionally, I incorporated teaching representatives from other sub-specialties to encourage their trainees to attend. Halfway through I conducted a survey to obtain feedback through google forms. I redesigned the workplace to help virtual attendance for the on-site team. I collected attendance data weekly from March 17th to July 31st and progressed PDSA cycles to test interventions according to the findings.

Results
• A high-level process map identified the steps to achieve successful outcomes from the LME programme.
• A Fishbone diagram highlighted all the possible root causes behind the poor attendance.
• A histogram showed the overall attendance: on average 20% over 3 months period highlighting the maximum attendance was from general paediatrics with the least from Paediatric ED and none from PICU.
• Effects of changes: figure 2
  • A positive shift in overall attendance.
  • Improved attendance of general paediatrics over 50%.
  • Sustained 50% attendance of infectious diseases
  • Increasing engagement of sub-specialties – PED and PICU.
  • Loss of allergy cohort due to clash with clinic time.
  • Increased awareness of LME programme.
• Success in Achieving CCT and consultant interview
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**Conclusion** Initially I believed the inconvenient timing of the session was the primary barrier in achieving good attendance. However, the process map and the fishbone diagram uncovered other systemic issues. The PDSA cycles demonstrated the importance of taking small interventions, one at a time, starting with the most accessible ideas first. It was still work-in-progress state and handed over to the current new education lead for further progress.

Ongoing endeavour for the future would be:-
1. More computers and IT support to monitor attendance and gain feedback
2. User friendly time e.g. trial of lunch time or after the handover
3. Increasing awareness of the trainees about their future leadership role
4. Active and exemplary engagement from the consultants from the sub-specialities to release the trainees

**CULTURES, CONTAMINANTS, CHILDREN AND COVID-19: AN ANALYSIS OF BLOOD CULTURE TRENDS**

Aims Bacteraemia is a leading cause of significant morbidity and mortality. Most cases are treatable with appropriate antibiotics and several are preventable by vaccination. The COVID-19 pandemic has resulted in significant disruption to the childhood routine vaccination programme, whilst at the same time decreasing infant infective viral respiratory diseases such as bronchiolitis. With this in mind, we wished to assess if there had been any significant changes in bacteraemia over time at our single centre, the Noah’s Ark Children’s Hospital for Wales. It serves a local area childhood population of around 92,000 under 17-year-olds.

**Objective**: To identify and analyse any potential trends in blood cultures between 2010-2020.

**Methods** All blood cultures taken for general paediatrics cases (excluding tertiary speciality referrals and babies on the neonatal unit) were collated from the microbiology database over the 11-year time period. These included cultures taken in the Emergency Department, Assessment Unit, medical and surgical wards. These data were compiled on Microsoft Excel. Subsequent positive cultures with the same growth as the initial positive culture taken within two weeks of each other from the same child were discounted to avoid duplication. The positive cultures were assigned as either significant or contaminant according to the standards used for the Public Health Wales Healthcare Associated Infection bacteraemia surveillance reports. The finalised data were then analysed to identify any trends.

**Results**
- Admissions per year ranged from 9,690 to 16,314 (median 13,442).
  - The number of blood cultures taken per 1000 admissions was a median of 153.9/1000 (range 130.2 to 164.4). Positive results per 1000 admissions had a median of 10.0/1000 (range 8.6 to 12.2). Both remained relatively consistent, even when acute admissions dropped to their lowest in 2020 (9,960) due to the emergence of COVID-19.
  - The total number of significant positive blood cultures identified across the whole time period was 571 (median of 53/year; range 40 to 66).
  - The mean percentage of significant organisms per 100 positive blood cultures across all years was 38.2% (median 37.9; range 33.1 to 43.7).
  - The most frequently cultured significant organisms across the study period were consistently either *Escherichia Coli* (2010, 2015, 2017 and 2020) or *Staphylococcus Aureus* (2011, 2012, 2013, 2014, 2018 and 2019); they were joint top in 2016. Both organisms accounted for between 12-27% of the most cultured significant organisms per year.
  - The number of blood cultures per 1000 admissions (164.4/1000) and the proportion of significant positive blood cultures (43.7%) was highest during the COVID-19 epidemic (figure 1).