

Importance of Communication in Reducing Sepsis; Risk in Children via Administration of Antibiotics in the Golden Hour

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Background:

Sepsis is a preventable cause of death. According to NICE guidelines, the first hour of diagnosing sepsis is considered the golden hour as the outcomes are better if the treatment is started at this hour. This observational study was conducted at a district general hospital to assess the compliance of the antibiotic administration within the first hour of diagnosis of sepsis.

Methods:

This study was conducted at Paediatric Department of Barnsley District general hospital and the data was collected from all the admissions to children's ward between October 2018 and June 2019 with a diagnosis of SEPSIS. Data was collected regularly and analysed every month by a team comprising of Paediatric doctors, antimicrobial pharmacist, patients safety team members and microbiologist. Periodic communication and feedback was sent to all the members of the team to reinforce the importance of the golden hour in sepsis management. Also, it was discussed in the handover and emphasised in induction.

Results:

Analysis of the data revealed that 77 children out of the 90 children (86%) received the first dose of antibiotics within 1 hour as per the NICE guidelines. Most common reason for missing the 1 hour deadline was difficult intravenous cannulation. It was observed that the children who were admitted to children's ward from A+E were more likely to get the 1st dose of antibiotic within the first hour of sepsis diagnosis than the children who were admitted through the Children's Assessment unit.

Conclusions:

The percentage of children receiving the first dose of antibiotic within 1 hour of diagnosing sepsis increased when everyone in the team were reinforced about the importance of the golden hour in sepsis. According to a previous study conducted in our hospital in the year 2018, the percentage of children

receiving antibiotics within 1 hour of diagnosis was just under 60 %. Hence, it can be concluded that by periodic communication via emails and feedback during the handover / teaching improved the compliance of antibiotic in the golden hour thereby improving patient safety.