The Use of Rocephin (Ceftriaxone) IVP in the Emergency Care Center (ECC)

BACKGROUND

• Timely initiation of antibiotics in patients with Sepsis/SIRS criteria decreases morbidity and mortality.
• Rocephin (ceftriaxone), a broad-spectrum antibiotic is frequently used in the emergency setting.
• Rocephin is often the first drug given in patients receiving multiple antibiotics.
• May be administered IM or IV piggyback (IVPB); literature supports administration IV push (IVP) over 5 minutes.
• Rocephin IVPB requires a 30-minute wait time prior to discharge to monitor for adverse drug reactions.
• Rocephin is frequently the last order given prior to discharge from the emergency department.

PURPOSE

The two-fold purpose of this project is:
• To evaluate the administration time and total length of stay in the ECC associated with IVPB administration of Rocephin versus IV push.
• Determine cost associated with IVPB versus IVP in the ECC (supplies, time, and length of stay).

REFERENCES

Available upon request: Charles.Pfeiffer@stjoe.org

METHODS

• Design: Evidence-based, quality improvement project.
• Setting/Participants: SJO ECC; patients who received Rocephin IVPB or IVP for 3-months in 2018 and 3-months in 2019.

Procedure:
• Key stakeholders contacted – physicians, pharmacists, nursing leadership to discuss and approve change in practice.
• Audited 2018 data for Rocephin IVPB as last order before discharge and with multiple antibiotics.
• Audited 2019 data for Rocephin IVP as last order before discharge and with multiple antibiotics.

RESULTS

Length of stay:
• Average time to discharge with IVPB = 89.32 minutes
• Average time to discharge with IVP = 41.03 minutes

Time from administration of 1st antibiotic (Rocephin) to 2nd antibiotic:
• IVPB = 82.65 minutes
• IVP = 33.16 minutes

Cost of IVPB versus IVP:
• IVPB total cost = $7.20/dose
• IVP total cost = $1.29/dose

IMPLICATIONS FOR PRACTICE

• Use of alternative routes of administration to decrease delays and costs while improving efficiency is imperative to providing care in an emergency setting.
• Safety and satisfaction must be in the forefront when changes are considered and made.

CONCLUSIONS

• During 3 months in 2019, the ECC administered 1,428 doses of Rocephin with a cost savings of $8,439.
• Annualized estimated yearly doses: 5,712.
• Annualized estimated savings received after converting to IVP from IVPB: $33,758.