Zosyn Prolonged Infusion Pharmacist Workflow

- 1. Convert all orders for Zosyn to 4.5gm BOLUS x 1 over 30 minutes, THEN 4.5gm q8h over 4 hours, EXCEPT:
 - a. Patients in the ED or Procedural areas (e.g. OR)
 - b. Orders for 'one time' doses
 - c. Pediatric patients
 - d. Patients receiving incompatible medications whose schedules can't be altered without placing a line (*Never suggest additional placement of lines as an option*)
- 2. Converted doses must be adjusted for renal function as follows:

| CrCl <20: 4.5 g over 4 hrs Q12h HD/PD: 4.5 g over 4 hrs Q12h CRRT: 4.5 g run over 4 hrs Q8h | CrCl <20: 4.5 g over 4 hrs Q12h | HD/PD: 4.5 g over 4 hrs Q12h | CRRT: 4.5 g run over 4 hrs Q8h |
|---|---------------------------------|------------------------------|--------------------------------|
|---|---------------------------------|------------------------------|--------------------------------|

^{*}NOTE: repeat loading doses are unnecessary if already given dose in ED

3. Standard hang times for Zosyn will be at 04:00, 12:00, and 20:00. Adjust subsequent doses as follows

| Loading dose 4.5 g IV x 1 over 30 minutes | Maintenance doses 4.5 g IV Q8h over 4 hours | | |
|--|--|----------------------|----------|
| 1 st dose **Rounded to the nearest hour | 2 nd dose | 3 rd dose | 4th dose |
| 0000-0259 | 0400 | 1200 | 2000 |
| 0300-1059 | 1200 | 2000 | 0400 |
| 1100-1859 | 2000 | 0400 | 1200 |
| 1900-2359 | 0400 | 1200 | 2000 |

Example: If the first dose is scheduled for 0215 then the 2nd dose will be scheduled for 0400.

- 4. Check for Y-site incompatibilities before converting and address them as follows:
 - a. If the incompatible med is given by IV push, attempt to convert to the PO/Per Tube/IM route (if applicable). If that is not an option, **keep the Zosyn schedule the same** and have the nurse give the incompatible medication. He/she should stop the Zosyn infusion temporarily, flush the line before and after IV push administration, then resume Zosyn immediately. Use this strategy for the following incompatible IV push meds:

| Pantoprazole | Famotidine | Promethazine | Haloperidol |
|--------------|----------------|------------------|---------------|
| Doxorubicin | Chlorpromazine | Prochlorperazine | Cisatracurium |

b. If the incompatible med is given by <u>IVPB</u>, attempt to convert to PO/Per Tube/IM route (if applicable). If that is not an option, **keep the Zosyn schedule the same** and adjust the schedule of the incompatible medication to accommodate Zosyn administration. Use this strategy for the following incompatible IVPB meds:

Note: Data has confirmed IV compatibility with Zosyn and Vancomycin. Can be given via Y-site.

| Acyclovir | Azithromycin | Amphotericin B | Nalbuphine | Doxorubicin | Amiodarone |
|-------------|--------------|----------------|------------|-------------|------------|
| Doxycycline | Gentamicin | Ganciclovir | Tobramycin | Minocycline | |

c. If the incompatible medication is administered by <u>continuous infusion via peripheral line</u>, <u>continuous infusion via central line with no dedicated lumen</u>, or <u>options b and c are not possible</u>, <u>convert back to standard dosing (q6-8h over 30 min)</u>. The following are incompatible continuous infusions:

| Cisatracurium Amiodarone | Dobutamine | Pantoprazole | Doxorubicin |
|--------------------------|------------|--------------|-------------|
|--------------------------|------------|--------------|-------------|

5. If the patient is converted back to standard dosing, remember to adjust for renal dysfunction. The reason for conversion must be documented in the order comments.