Expect More Use of the Antibiotics Avycaz or Vabomere for "CRE"

You'll hear continued debate about which antibiotics to use to treat carbapenem-resistant Enterobacteriaceae (CRE) infections.

Work with ID to tailor regimens based on susceptibility and safety.

**Newer antibiotics.** Anticipate using ceftazidime/avibactam (Avycaz) or meropenem/vaborbactam (Vabomere) more. Recent evidence suggests they are safer and may be more effective than traditional options...such as meropenem PLUS a polymyxin (colistin, etc).

Like most CRE data, evidence for Avycaz and Vabomere is limited...and they cost almost $1,000/day. But traditional regimens often require IV polymyxins...which have a risk of renal failure. Some data suggest acute renal failure can occur in up to 50% of patients.

Verify micro testing is performed to ensure susceptibility to Avycaz or Vabomere...since some CRE strains can be resistant.

Don't confuse ceftolozane/tazobactam (Zerbaxa) with ceftazidime/avibactam. Both are active against Pseudomonas, but Zerbaxa is NOT effective for CRE.

Keep in mind, the new antibiotic plazomicin (Zemdri) doesn't seem to have advantages for CRE...and its risk of nephrotoxicity is similar to other aminoglycosides.

**Traditional regimens.** Look for these regimens to combine at least two meds...a high-dose carbapenem, polymyxin, aminoglycoside, or tigecycline.

Don't be surprised to see meropenem often included in the regimen. It seems to be associated with better outcomes. Maximize benefit with a high-dose, extended-infusion regimen.

But lean away from meropenem if the MIC is more than 8 mcg/mL. These infections are often too resistant for meropenem to be effective.

See our chart, *Resistant Gram-Negative Bacterial Infections*, for more on dosing antibiotics for CRE treatment, etc.

**Key References:**
- Medication pricing by Elsevier, accessed Sep 2018

Hospital Pharmacist's Letter. Oct 2018, No. 341020