Teicoplanin is a recent glycopeptide antibiotic that was introduced to the Egyptian market and Kasr Alainy hospitals in the past two years. Teicoplanin is indicated for the potentially serious Gram-positive infections including serious infections due to Staphylococcus aureus, endocarditis, and dialysis associated peritonitis, also for prophylaxis in orthopedic surgery at risk of infection with Gram-positive organisms. (1)
Vancomycin and Teicoplanin are commonly used to treat gram-positive infections, particularly those caused by Methicillin-Resistant Staphylococcus aureus (MRSA). Recent review (2010) concluded that Teicoplanin and Vancomycin are both effective in treating those with proven or suspected infections; however the incidence of adverse effects including nephrotoxicity was lower with Teicoplanin. It may be reasonable to consider Teicoplanin for patients at higher risk for acute kidney injury needing dialysis.\(^{(2)}\)

Recent systematic review and meta-analysis (2010) of prospective randomized trials that tested Linezolid versus glycopeptides (Vancomycin or Teicoplanin) for treatment of nosocomial pneumonia concluded that compared with glycopeptides clinical superiority of Linezolid has not been demonstrated. Linezolid shows a significant two-fold increase in the risk of thrombocytopenia and gastrointestinal events. Vancomycin and Teicoplanin are not associated with more renal dysfunction than Linezolid.\(^{(3)}\)

An initial loading procedure has been recommended to enable Teicoplanin to promptly reach an effective serum concentration for the treatment of Methicillin-Resistant Staphylococcus aureus (MRSA). Recent retrospective study results (2010) suggest that the administration of ≥36 mg/kg during the first 3 days is appropriate to promptly obtain a trough concentration target of ≥13 mg/L for the initial treatment of MRSA infections.\(^{(4)}\)

For patients with impaired renal function, reduction of dosage (in the loading dose) is not required until the fourth day where:

i. Half the maintenance dose is used if the creatinine clearance is 40-60 ml/min.

ii. One-third the maintenance dose is used if the creatinine clearance is less than 40 ml/min and in haemodilaysed patients (Teicoplanin is not removed by dialysis).\(^{(1)}\)

Teicoplanin special precautions

i. Teicoplanin should be administered with caution in patients known to be hypersensitive to Vancomycin since cross sensitivity may occur. However, a history of the Red Man Syndrome that can occur with Vancomycin is not a contra-indication to Teicoplanin.

ii. It's required to monitor renal and auditory function during prolonged treatment in renal impairment or if concurrent and sequential other nephrotoxic or neurotoxic drugs are used. These include Aminoglycosides, Colistin, Amphotercin B, Cyclosporine, Cisplatin, Furosemide, Ethacrynic acid.\(^{(5)}\)
It's important to note that Teicoplanin (Targocid) is approved by Egyptian ministry of health and not approved yet by the U.S Food and Drug administration (FDA) and the European Medicines Agency (EMEA).

References:
1. BNF 60
5. EPG: European Prescriber Guide on line.

FDA NEWS

**A. Avastin (Bevacizumab): “Process for Removal of Breast Cancer Indication Begun”**

**FDA Alert [Posted 12/16/2010]**

- FDA notified healthcare professionals and patients that it is recommending removing the breast cancer indication for Avastin (Bevacizumab) because the drug has not been shown to be safe and effective for that use. This action will not affect the approvals for colon, kidney, brain, and lung cancers.

- FDA is making this recommendation after reviewing the results of four clinical studies of Avastin in women with breast cancer and determining that the data indicate that the drug does not prolong overall survival in breast cancer patients or provide a sufficient benefit in slowing disease progression to outweigh the significant risk to patients. These risks include severe high blood pressure; bleeding and hemorrhage; the development of perforations (or “holes”) in the body, including in the nose, stomach, and intestines; and heart attack or heart failure.

**Recommendations:**

Oncologists currently treating patients with Avastin for metastatic breast cancer should use their medical judgment when deciding whether a patient should continue treatment with the drug or consider other therapeutic options. 

(1)
B. **FDA label changes...November 2010**

<table>
<thead>
<tr>
<th>Crestor (Rosuvastatin calcium) Tablets</th>
<th>Zocor (Simvastatin) Tablets</th>
</tr>
</thead>
<tbody>
<tr>
<td>It has been added to the <strong>ADVERSE REACTIONS</strong> section of the safety label that the drug causes <strong>depression and sleep disorders</strong> (including insomnia and nightmares) (1)</td>
<td>It has been added to the <strong>ADVERSE REACTIONS</strong> section of the safety label that the drug causes <strong>erectile dysfunction and interstitial lung disease.</strong> (1)</td>
</tr>
</tbody>
</table>

**Available in the Egyptian market as**

- Crestor, Advochol, Rosuvast, Merosatin, Sovikan, Cholerose and Crestolip (2)
- Zocor, Simvacor, Corvast, Simvastat, Vastan, Amristatin, Low Sterol and Alkor (2)

**References:**
1. FDA.gov

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**From KDIC Questions**

1. **I.V. Administration and stability of reconstituted Ceftriaxone (Rocephin) in pediatrics:**
   - Rocephin should be administered intravenously by infusion over a period of **30 minutes.**
     **After reconstitution** (1 g in 10 ml water) **further dilution is required** with the appropriate I.V diluents (e.g. Normal saline and Glucose 5% or 10%).
   - Rocephin intravenous solutions (after dilution), at concentrations of 10, 20 and 40 mg/ml, **remain stable** if stored in glass or PVC containers for **2 days at room temperature (25°C)** and **10 days when refrigerated (4°C).**
   - For the **treatment of serious miscellaneous infections** other than meningitis, the recommended **total daily dose in pediatrics** is **50 to 75 mg/kg**, given in divided doses every 12 hours. **Total daily dose should not exceed 2 grams**
   - **Do not mix or administer** Rocephin (ceftriaxone) simultaneously with calcium-containing solutions or products (including Ringer’s solution), these solutions can be used sequentially if the infusion lines are flushed with a compatible fluid between ceftriaxone and calcium-containing solution infusion.

**References:**
1. FDA Monograph of Rocephin (www.drugs.com).
2. Manufacturer of Rocephin for injection (ROCHE)
2. **Compatibility of vancomycin and theophylline:**

- As a trial to increase the patient compliance by decreasing the number of daily injections. **The question was:** Is Vancomycin compatible with Theophylline in Normal Saline in Y-site administration?
  - **the answer was:**
  - Theophylline is not compatible with Normal saline.
  - Vancomycin is compatible with Theophylline in Glucose (Dextrose) 5% in Y-site administration.

References:

**Note about: Bosentan (Tracleer)**

- **Bosentan** is an endothelin receptor antagonist approved for use as an alternative to traditional therapies for pulmonary arterial hypertension.
- Bosentan can improve exercise capacity, symptoms, and cardiopulmonary haemodynamic variables in people with symptomatic pulmonary arterial hypertension over a period of 12 weeks to 6 month treatment.
- The most severe potential side-effect was **hepatic toxicity**.\(^1\)
- **Elevations of AST and/or ALT** associated with bosentan are **dose-dependent** and can occur both early and late in treatment. Elevations are **usually reversible** after treatment, interruption or cessation
- **If aminotransferase elevations** are accompanied by clinical symptoms of liver injury **or increase in bilirubin >= 2 times the upper limit of normal**, **treatment should be stopped.**
- **Bosentan** is **contraaindicated in PREGNANCY** (Category X).\(^2\)

References: