Reviewer's report

Title: Daptomycin Therapy for Osteomyelitis: A Retrospective Study

Version: 1 Date: 17 December 2011

Reviewer: RAVINA KULLAR

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Daptomycin Therapy for Osteomyelitis: A Retrospective Study
Gallagher J.C., et al.

Major Compulsory Revisions
1. Page 5-“To determine the persistence of clinical success,...” Investigators should have a set follow-up end point. Difficult to determine what the follow-up period actually is and how one would interpret this...anywhere from 1-2 years?
2. Page 6-“During that time period, the longest assessment...” Having a variable follow-up period is not beneficial to the clinician. The authors should have a predefined follow-up period rather than having a range of follow-up period as this means nothing to the reader in terms of assessment.
3. Page 7 and Figure 2-“No difference in the failure rate between daptomycin dosing groups was identified.” Since the sample size in the patients receiving < 6 mg/kg (n=24) vs. > 6 mg/kg (n=47) was so different, the results should be interpreted cautiously. Additionally, in performing a Kaplan Meier analysis, the smaller the sample size is, the longer the intervals will be, raising the question of whether the assumption of a constant survival probability within each interval is appropriate.
4. Discussion-would include small sample size as a limitation as this could have played a role in the results from the Kaplan Meier analysis.

Minor Essential Revisions
1. Page 4-“Recent data suggest that...” The references the authors provide for this are older as there have been more recent publications that have determined this. (Moore CL, et al. AAC 2011 Oct; 55(10); Kullar R, et al. CID 2011 Apr; 52(8)).
2. Background-Has there been any in vitro or in vivo data published on daptomycin in osteomyelitis models? If so, may strengthen background.
3. Page 4-Reword aims as the current wording sounds awkward
4. Results-did all patients have normal renal function? Any patients have ARF or were on HD?
5. Results-would be beneficial to have severity score (APACHE-II, Charlson score, etc.) to assess how sick these patients were
6. Page 7-“Thirty-six adverse events...” There was no reference to adverse
events in the methods section. What was the definition of “possibly related to
daptomycin”, etc?

7. Table 2-What was the definition of “Blood CPK Increase” – there is nothing in
the methods section as to what is considered an increase in CPK. How many
patients had a baseline, follow-up and end-of-therapy CPK level drawn?

**Level of interest:** An article whose findings are important to those with closely
related research interests

**Quality of written English:** Needs some language corrections before being
published

**Statistical review:** No, the manuscript does not need to be seen by a
statistician.

**Declaration of competing interests:**

I serve on the Speaker's Bureau of Cubist Pharmaceuticals.