

1 Summary

The paper focuses on interaction between hospitals with special focus of the CCU . The authors attempt to highlight application of the game theoretic model, Markov chains to a real hospital problem in the UK. A gap left by previous researches on interaction between hospitals is explained. Two separate models, i.e, soft and strict diversion models are implemented to the CCU problem.

2 General Comment

The motive of the of the paper is clearly outlined and the authors attempt to solve a real problem. The greatest weakness of the paper is that parameters are used without giving clear definitions or explanations.

3 Specific Comment

- (a) On page 5, the model is referred to as a Figure 6. This confuses and leaves a question on whether it is a figure or equations. I am unsure whether figure 6 is missing or authors are referring to the model on page 6.
- (b) The paper is unreadable. The unknowns used, some, are undefined, for example on page 3, h , c_h , etc are not defined and it is very difficult to find definitions of those defined. I suggest that the authors provide a list of the parameters used somewhere in the paper where it is easy to refer.
- (c) On page 12, authors states that "‘It is also noted that as demand increases the effect of uncoordinated behaviour increases (and the recommended target also increases) as shown in Figure 13’", is there any possible explanation to this finding.
- (d) Are the Queuing and Game theoretic models never been implemented to solve such problems? There is a need to review literature that has information on application of the used models to hospital problems or related problems.
- (e) The authors need to give a justification on the reason why they are implementing the models.