

## Abstract

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An operating theatre complex at a South African private hospital was measured against a framework to gauge its effectiveness and efficiency. Eight key metrics are proposed against which the complex recorded an overall score of 5/12. Simulated alternative states explored scheduling and rostering stratagems to broadly improve the usefulness of the theatre and its utilisation specifically. Modifications to the management strategy were made. These implementations were simulated in Rockwell Arena. The simulated states showed significant improvement in overall theatre utilisation and effectiveness, moving from a current state utilisation of 47 % to a theoretical level of 85 % whilst the effectiveness score rose from 5/12 to 11/12. This change is significant and meets established international best practice benchmarks. Major issues include a lack of scheduling, planning and control by support functions, poor adherence to schedules by surgeons and interpersonal politics between the two groups.