

## How should a surgeon's list of elective cases in the same OR on the same day be sequenced?

I recommend reading the following review article: [Making management decisions on the day of surgery based on operating room efficiency and patient waiting times \[PDF\]](#). Safety is usually unaffected by the sequence of elective cases. Nonetheless, if it were, safety is the priority. Next, check if there is conflict over equipment or specialized personnel such that sequencing cases among ORs will reduce over-utilized hours. For the mathematics, see: [Bayesian prediction bounds and comparisons of operating room times even for procedures with few or no historical data \[PDF\]](#). Typically, the decision will still not have been made. The cases can be sequenced from the most to the least predictable in duration. Predictability can be quantified as the difference between (i) the 90% upper prediction bound for the duration of the case and (ii) the mean of historical durations for the case. Generally, shorter cases will be more predictable than longer cases. However, there are so many exceptions that predictability should be calculated explicitly for each surgical case.

There are additional issues to consider. First, there may be an impact of case sequencing on the post-anesthesia care unit and on case cancellations ([click here](#) and [click here](#)). Second, when a service has few cases per OR per day (e.g., 2-3), no OR with overutilized time, and moving the case of a surgeon with only 1 case to another OR results in a substantive ( $\geq 30$  min) increase in the minimum underutilized OR time among the service's ORs, performing that resequencing long-term permits an increase in productivity ([click here](#)).

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