

## Seasonal bed requirements in Paediatrics

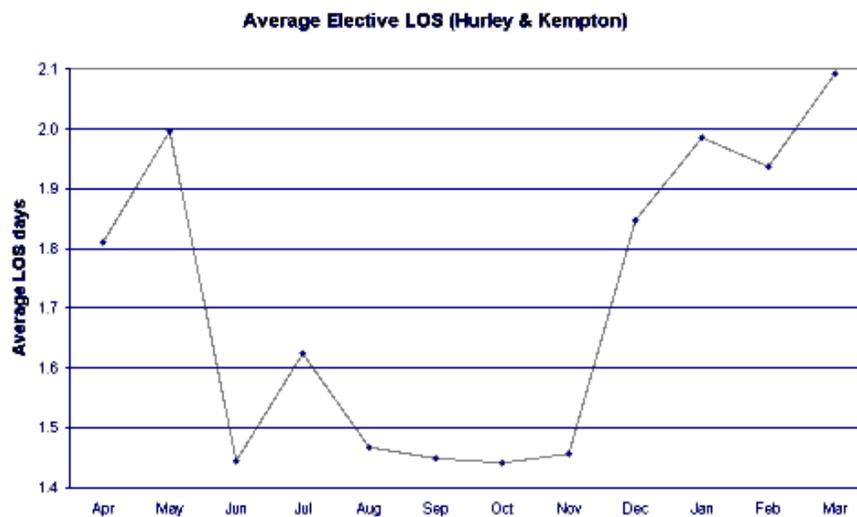
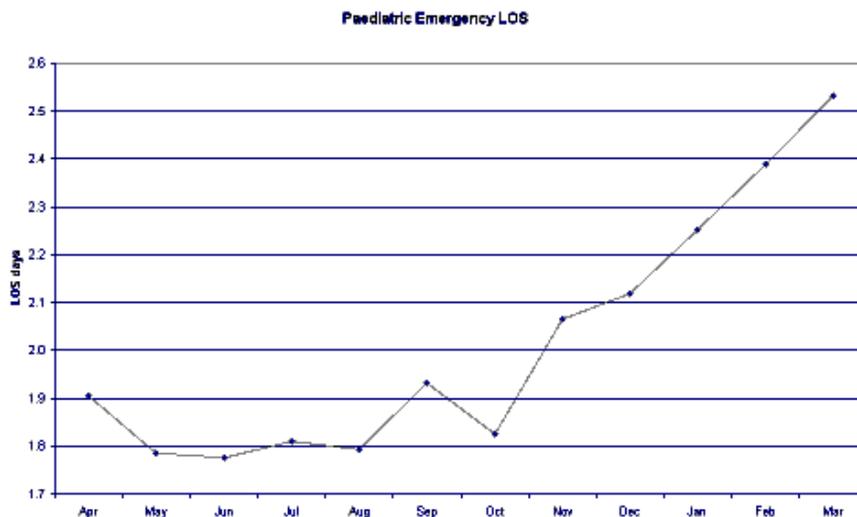
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Paediatric bed requirements are a complex interplay between seasonal admissions and average length of stay. This report discusses the potential for summer bed closures.

### Length of stay:

LOS has the following profiles for Emergency and Elective admission



Essentially the average emergency LOS is constant between April and October at around 1.83 days (log-normal distribution). Thereafter it rises to a March peak, i.e. average LOS seems to be cumulative with the progress of winter.

The elective LOS shows a summer minimum June to November (average 1.5 days) followed by the same cumulative increase in LOS shown by the emergency

# Healthcare Analysis & Forecasting

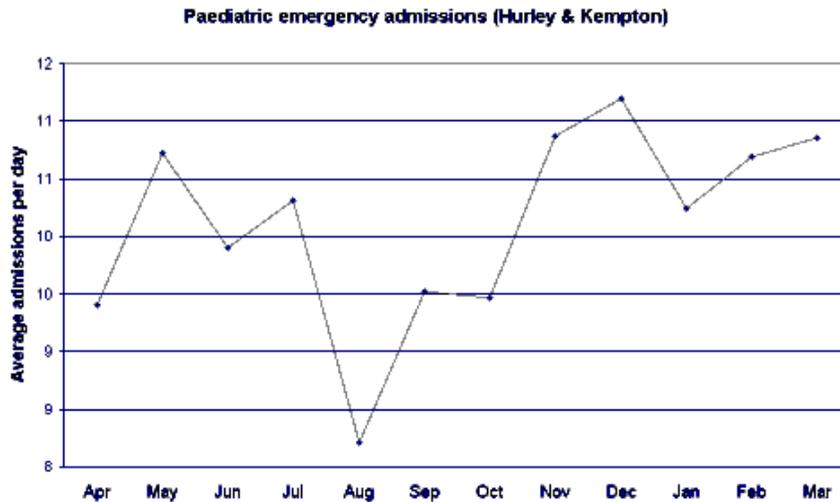
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admissions over the winter months. Is this due to cross-infection from mixing surgical and medical patients?

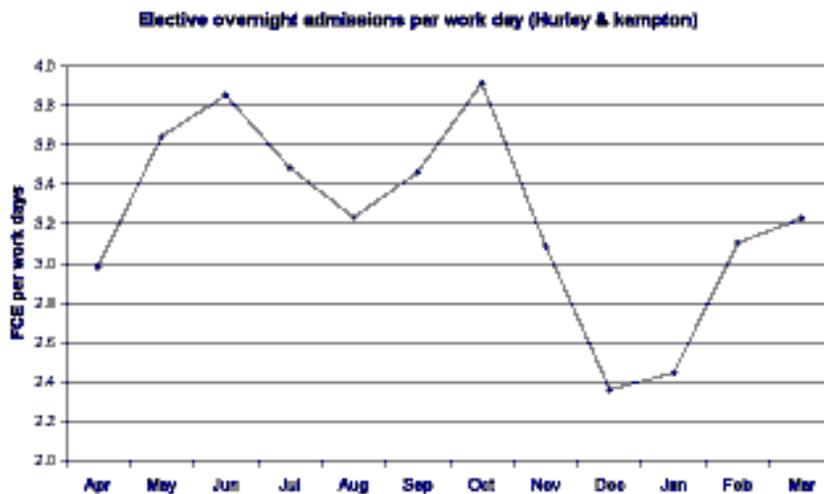
Elective LOS appears to be high in April and May – this cannot be due to cross infection. Do you do a different case mix of operations throughout the year?

## Admissions per day:

Emergency Admissions per day have the following profile.



while elective admissions follow an alternative profile which is based on working days (Monday to Friday) rather than a seven day week:



Emergency admissions are lowest in August, intermediate in April, September & October, and highest in the remaining months. Elective admissions are lowest in December & January (restricted by bed availability due to emergency demand) and have a summer minimum July to September.

## Scope to close beds over the summer months

Emergency LOS is at a minimum over the summer months and emergency admissions per day are at a minimum in August.

Based purely on emergency admissions there is scope to close Kempton ward during August. This option gives an average occupancy of 59% and an average turn-away of 0.3%. Worst possible case is higher than 3% turnaway only occurring on less than 10% of occasions, e.g. on 3 days out of 30. Worst possible case implies patients may experience some delay before admission, e.g. may stay in the assessment unit for several hours waiting for a bed.

Closure of Kempton in September gives an average occupancy of 66% and a turn – away of 1.1%, e.g. 1 in 100 patients would experience delay on admission. Worst possible case turn-away could be up to 5% on 3 days out of 30.

Both of these scenarios ignore elective admissions which average around 3 per working day (Monday to Friday) during August. To cope with the elective workload these patients would probably need to be routed through Albert ward. The low average LOS implies that many do not stay overnight. Those that need to stay overnight would need to be transferred to Hurley at the end of the day.

### Conclusion:

Kempton ward can be closed in August and possibly also during September. Some elective patients may need to be treated via Albert ward with those staying overnight being transferred to Hurley when the daybed unit is closed. This flexibility may only be needed on 3 days out of 30.

Worst possible case outcomes show only 5% of patients waiting for a bed on a maximum of 3 days out of 30.