

GENERAL HOSPITALS DIVISION



WOMEN, CHILDREN & DIAGNOSTIC SERVICES MATERNITY UNIT - BED REQUIREMENTS

1. INTRODUCTION

The Outline Business Case for the new Maternity Unit produced in November 2002, outlined a reduction from the 82 beds utilised at Ayrshire Central Hospital to 60 beds in the new development. The Obstetrics Directorate established a short-life working group in September 2003 to review bed requirements with the following specific aims:

- a. To review the assumptions made in the OBC to reduce bed numbers
- b. Take account of changes in existing practice which have been developed since the OBC preparation
- c. Review the planned provision of care for the new unit
- d. Benchmark existing provision against practice elsewhere
- e. Utilise data from the COMPAS patient administration system and the METASA Maternity Information system
- f. Extrapolate bed numbers using Hospital Building Note 21 recommendations.

2. OCCUPANCY LEVELS

The group reviewed the bed occupancy data from 1992 / 93 onwards which is reflected in Appendix 1 and has been updated to include the 2003 / 04 year. This identifies 3,554 births, and a total of 7,298 discharges. With that activity the average length of stay was 2.3 days and an occupancy of 59.6% against a bed complement of 72 beds which was lowered in mid-year from the previous total. That data projected against a 60 bed complement would show an occupancy rate of 75.5%.

National guidance suggest that specialties which need a dedicated service and are unable to board patients to other areas, should have their bed capacity based on a 70 - 75% occupancy level. Manual recording of mid-day bed occupancy was also undertaken to compare this to the mid-night figures which form the national standard for assessing bed occupancy. The analysis of this data identified a random pattern of occupancy at the two points measured, and demonstrated that the mid-night figures did not understate the bed occupancy requirements.

3. ANTENATAL BED REQUIREMENTS

The Maternity Unit had approximately 3,500 occupied bed days utilised by approximately 3,300 patients during the 2003 / 04 year, which is consistent with the

occupancy rates of previous years. Based on this data the unit required 13.5 antenatal beds at 70% occupancy. Applying the formula given in HBN 21 a requirement of 15 antenatal beds would be necessary for 3,500 deliveries per year.

4. POSTNATAL BED REQUIREMENT

The majority usage of the total 16,536 bed days in 2003 / 04 was by patients for postnatal care, accruing some 13,000 bed days. Again applying a 70% occupancy rate, this would require a bed complement of 50 beds. The caesarean section rate during this year was 26%. Using the HBN 21 formula the number of postnatal beds, assuming a length of stay of 160 hours for caesarean and 60 hours for SVD, would equate to the same number.

5. TOTAL NUMBER OF BEDS

Recent trends would suggest a requirement for 13.5 antenatal and 50 postnatal beds giving a required total of 63.5 beds. When the HBN 21 formula is applied this would indicate 16 antenatal and 50 postnatal beds, comprising a total of 66 beds.

6. SUMMARY

It is evident that the planned number of beds in the new unit would be insufficient to meet demand during periods of high occupancy which will occur on an occasional basis. The size of the unit was however based on projections indicating a reduced number of births which are included in the data provided by the General Registrars office. To manage within the bed complement plan staff will need to review working practices in terms of :

- a. Critically review periods of time that patients stay in the Early Pregnancy and Admissions units
- b. Examine potential for reducing antenatal care stay
- c. Review lengths of stay for postnatal care
- d. Ensure consistent practice by clinical staff following established protocols

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