INPATIENT LENGTH OF STAY AND FINANCIAL IMPLICATIONS FOLLOWING ABOVE & BELOW KNEE AMPUTATIONS

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Average Length of Stay (LOS) in Days of Hospital Discharges for Nontraumatic Lower Extremity Amputation with Diabetes as a Listed Diagnosis, United States, 1988-2009

From 1988 to 2009, the average LOS of hospital discharges for nontraumatic lower extremity amputation with diabetes as a listed diagnosis decreased by 10.1 days (from 19.9 to 9.8 days). The detailed tables show that the average LOS decreased among all age, sex, and race groups examined.
### Table 18.5
Nontraumatic LEA Findings from Selected Hospital Discharge and Cohort Studies

<table>
<thead>
<tr>
<th>Ref.</th>
<th>LEA</th>
<th>State or group studied</th>
<th>Age-adjusted number of LEAs per 10,000 persons per year</th>
<th>Diabetes-specific findings</th>
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<td>Pima Indians</td>
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</tr>
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</table>

**Hospital Discharge Studies**

**Cohort Studies**

LEA, lower extremity amputation; NHDS, National Hospital Discharge Survey.

*Source: References are listed within the table*
Background

• No clearly defined length of stay post amputation
More facts and figures...

- Royal Derby Hospital (March - November 2009) postoperative LoS 19.6 days (range 5-47)
- Duke University Hospital - 1 yr period LoS 11.1 +/- 7.04 days reduced to 9.61 +/- 6.37 increased use of MDT approach/efficiency
- Singapore study: able to reduce LoS from 23.16 to 17.8 days through use of the LEAP programme
Aim

Identify factors leading to unnecessarily long postoperative LoS
Selection criteria

• AKA
• BKA
• Last 50 amputations
• Exclude current inpatients
• Patients died post operatively
Methodology

• Total LoS
• Post-operative LoS
• LoS once medically fit
• Post-operative and non-operative issues
• Cost of prolonged LoS
Limitations

• Only 20 case notes available
• Difficult to find reasons for delay e.g. social reasons
• Not all data transferred to computerised records
Results

- 27 AKAs and 23 BKAs
- 59.54 Total LoS and 42.2 days Post op LoS
- LoS once medically fit 17.17 days = £2692.76
- Total cost £48469.74
Contributing factors

• Surgical Issues
  – Complications (60%)
  – Further treatment (50%)
  – Wound (40%)

• Non Operative Issues (dominate once MFFD)
  – Housing (40%)
  – OT equipment (45%)
  – Further rehab (25%)
  – Other social/care (25%)
Conclusion

Non-medical issues are the major factors prolonging LoS. Novel and effective strategies are required to minimise delays involving social planning and discharge with the involvement of key stakeholders.
Suggestions

• Prolonged LoS multifactorial
• Where possible early referral to OT/social work prior to hospital admission
• Early referral to pain team to help reduce effect of post operative pain
• Build nutrition/strength prior to amputations
• Collapsible side arms on chairs to aid transfers