

# City Hospitals Sunderland

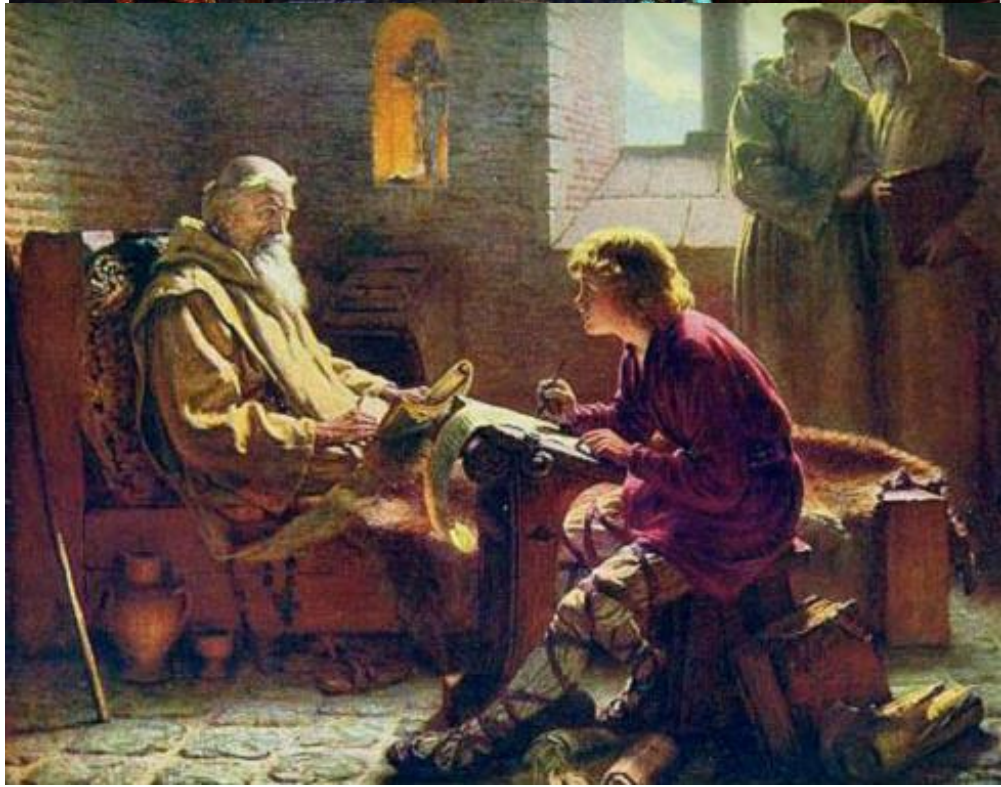


NHS Foundation Trust

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

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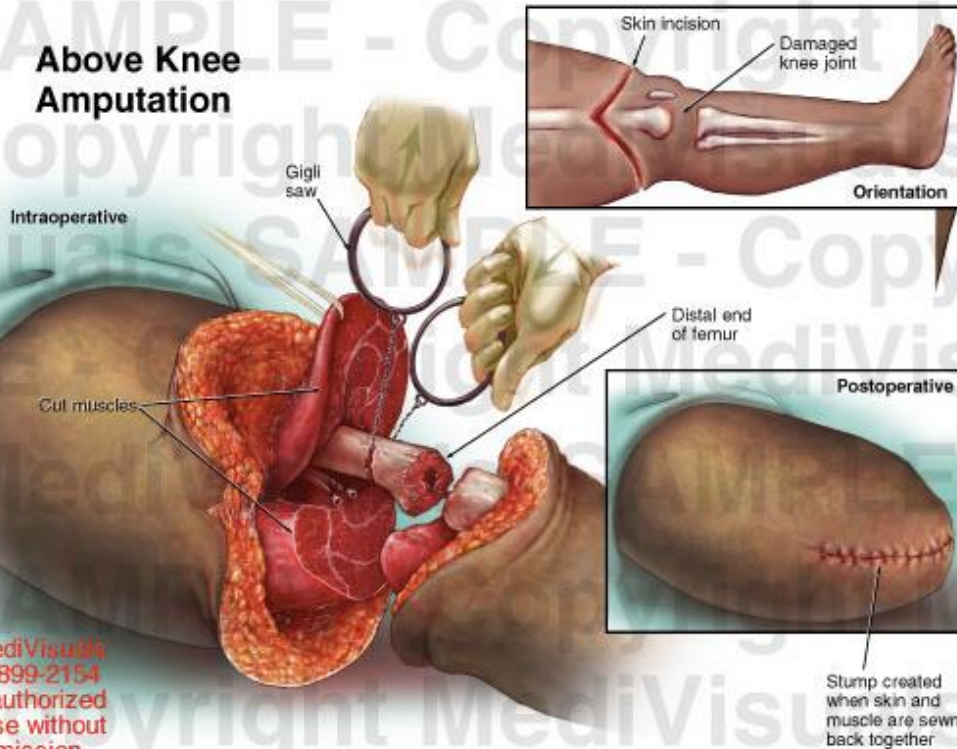




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## Above Knee Amputation

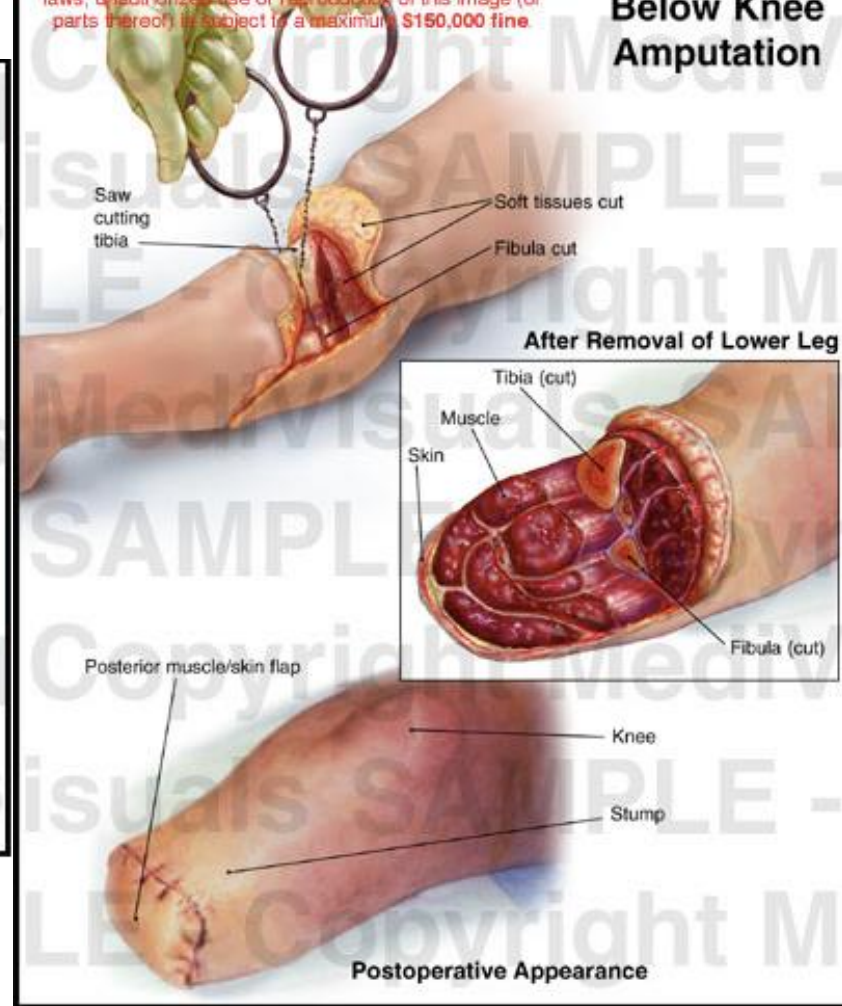


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## Below Knee Amputation



Exhibit# 202018\_08XR

## 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.

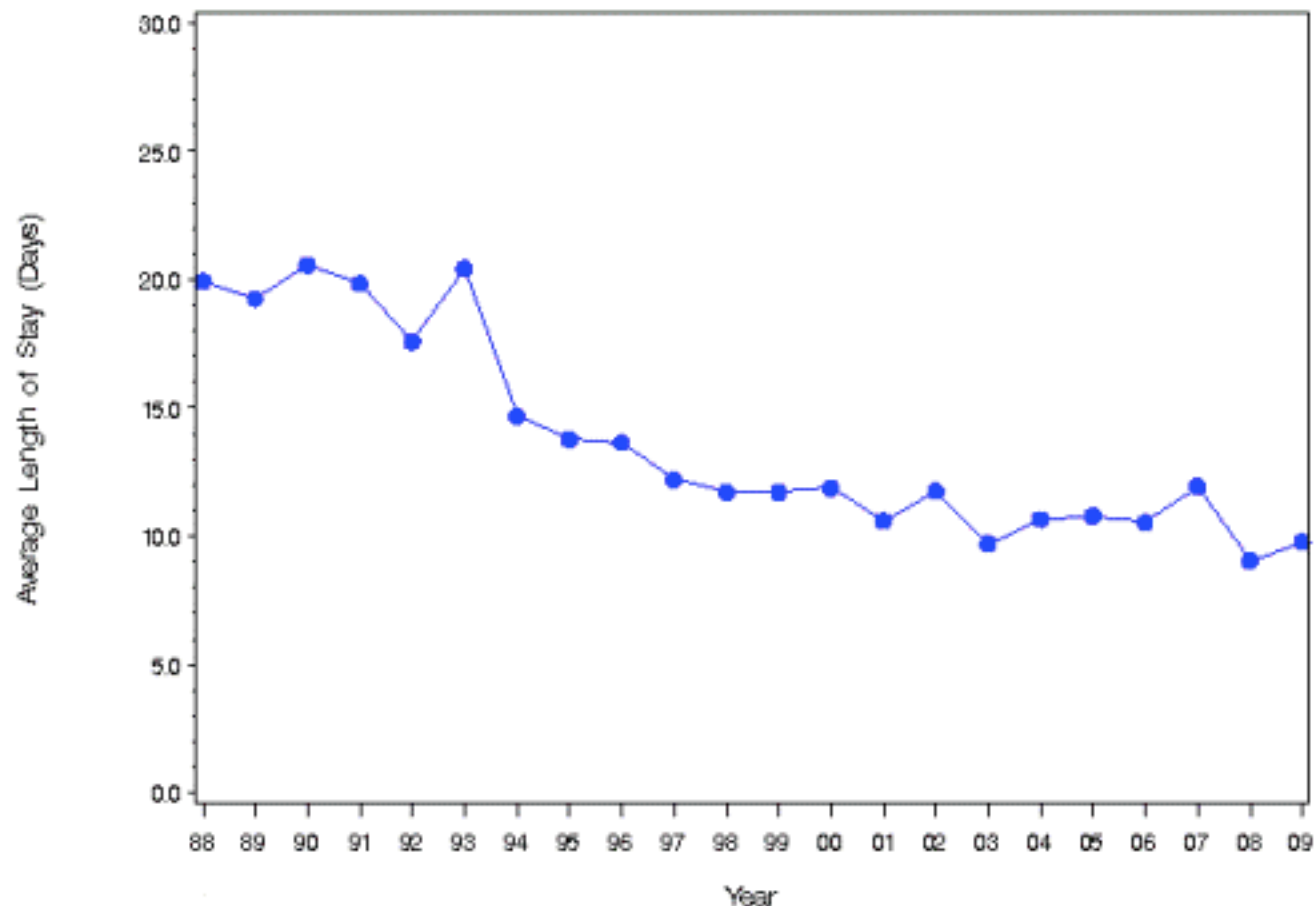


Table 18.5

Nontraumatic LEA Findings from Selected Hospital Discharge and Cohort Studies

Ref.	LEA	State or group studied	Age-adjusted number of LEAs per 10,000 persons per year		Diabetes-specific findings		
			No diabetes	Diabetes	Diabetes among LEA cases (%)	Below-knee and above-knee of total LEA (%)	Mean duration of hospital stay (days)
<i>Hospital Discharge Studies</i>							
35	Any	Colorado		37	55	45.5	15.4
36	Any	Rhode Island	2.5	88	53	57	33
37	Any	New Jersey		77	63	56	40
38	Any	U.S., six states	2.0	58	45	65	30
39	Any	U.S., NHDS		81	51	43	20.6
40	Any	Washington	1.0	52	50		
41	Any	California	1.2	47	55	62	21
42	Any	Veterans Administration			50	55	
<i>Cohort Studies</i>							
43	First	Pima Indians	1.3	137	95	16	

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



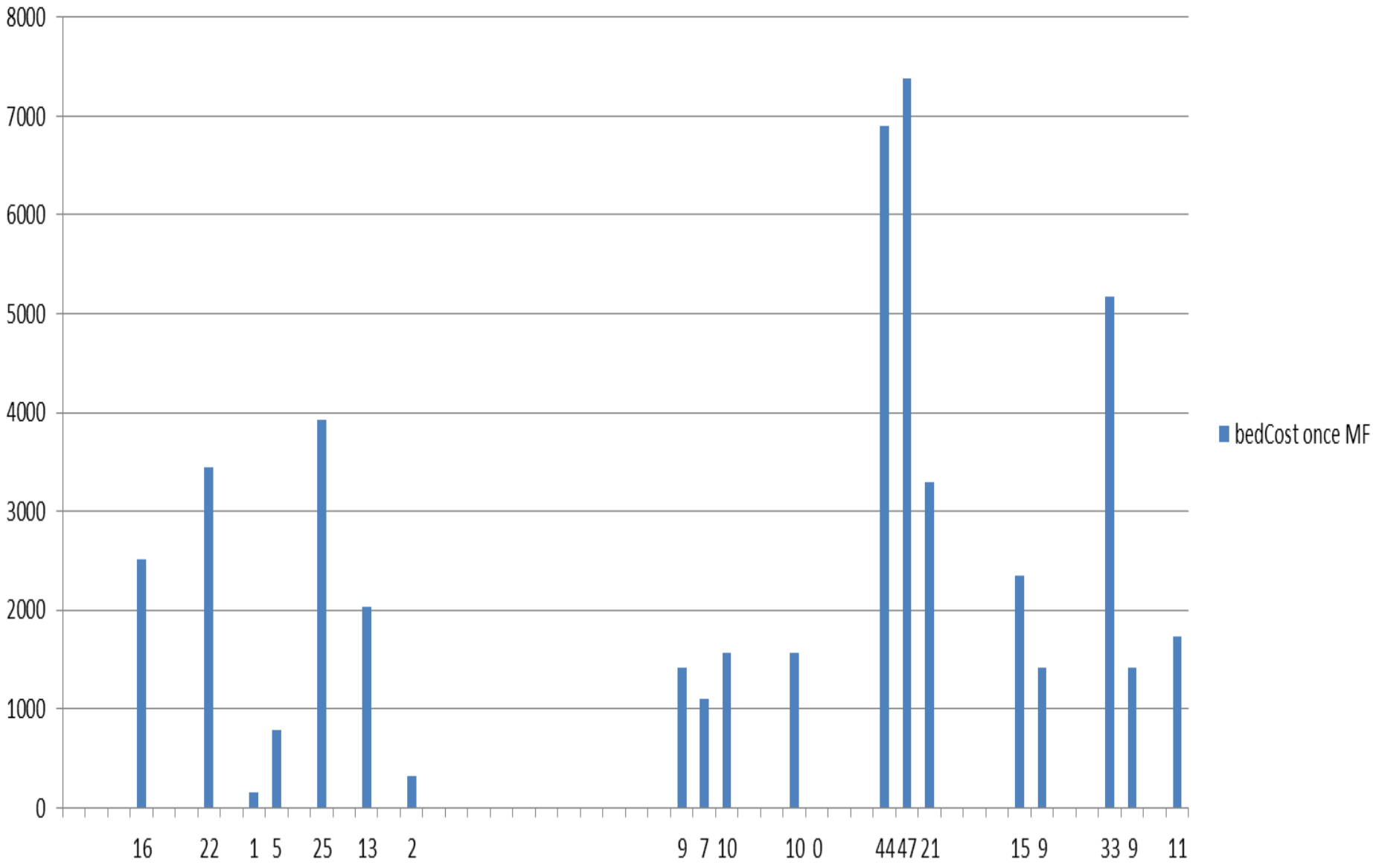
# Limitations

- 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

# bedCost once MF



# 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



