

**BSRM SIGAM Meeting and AGM**  
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**Free Paper Abstracts**

**Dwelling On Indwelling Urinary Catheter in Patients with Lower Limb Amputation**

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**Background:**

Indwelling Urinary Catheter (IUC) adversely affects a patient's morbidity and mortality and also diminishes quality of life particularly affecting social and sexual functions. A number of patients who have ILJC inserted at the time of lower limb amputation retain it permanently but are uncertain as to why. Aim of the present bench marking audit is to ascertain the incidence and certain implications of IUC in these patients as there are no previous guidelines.

**Method and Results:**

Review of 92 consecutive primary referrals with lower limb amputation revealed 16 had significant urinary dysfunction at first visit — [IUC (13), suprapubic catheter (2), and incontinence pad (1)] and after 6 months — [1UC (10), suprapubic catheter (2), and incontinence pad (3)]. 8 patients with ITJC after 6 months although discharged from surgical services were unaware of further urological referral or whether IUC would be retained permanently. The anchorage of drainage bag at first visit was by encircling velcro straps to contralateral limbs (13) or to the residual limb (2) producing local discomfort (2), local indentation (6) and distal oedema (10).

**Comments and Recommended Action:**

Suspected cases of inappropriately retained IUC should be referred back to surgical teams by rehabilitation clinician to ensure optimal urological management. Use of encircling velcro straps to anchor drainage bags either to contralateral limb or to residual limb could be potentially harmful. On the basis of present knowledge Depuy aquasleeve may be the best alternative system for anchorage of urinary drainage bag and may be suitable for further trial.

**Reference:**

1. Saint S, Weise J, Amory JK et al. Are physicians aware of which of their patients have indwelling urinary catheters? *Am J Med* 2000;109:476-480.
2. Suspension systems for urine leg bags: A comparative evaluation. Disability Equipment Assessment. Medical Devices Directorate. Al 1 March 1995.

**Fractures of the residual limb after amputation**

*Dr B Ramakrishna, Consultant in Rehabilitation Medicine, Norwich*

**Background:**

Fractures of the residual limb after amputation are not very common.

Prognosis with regards to re-gaining the level of activity prior to suffering such a fracture is not uniformly good.

### Specific Issues:

To identify any factors that may have an influence on outcome.

### Clinical Details:

A cluster of six patients with transtibial amputations who suffered a fracture of the residual limb within the last year is presented. Three of these were fractures around the hip and three around the knee.

Amputation	Fracture	Management	Pre # mobility	Post # mobility
Trans tibial	Vertical split of tibia	Operative reduction & internal fixation	Full time use of prosthesis Outdoor walking unaided	Full time use of prosthesis. Outdoor walking with one walking stick
Trans tibial	Supra condylar fracture of femur	Operative reduction and internal fixation	Full time use of prosthesis. Outdoor walking with one walking stick	Full time use of prosthesis. Outdoor walking with two walking sticks
Trans tibial	Supra condylar fracture of femur	Conservative management	Full time use of prosthesis. Outdoor walking with one walking stick	Wheelchair mobility only
Trans tibial	Trochanteric fracture of femur	Operative reduction and internal fixation	Full time use of prosthesis. Outdoor walking with two walking sticks	Full time use of prosthesis. Indoor walking with two walking sticks
Trans tibial	Subcapital fracture of neck of femur	Operative reduction and internal fixation	Full time use of prosthesis. Outdoor walking with one walking stick	Full time use of prosthesis. Outdoor walking with two walking sticks
Trans tibial	Subcapital fracture of neck of femur	Conservative management	Full time use of prosthesis. Indoor walking with one walking stick	Wheelchair mobility only

### Results:

Collectively, the outcome in patients who have had their fractures surgically reduced and well fixed have an outcome that is better than those who have had their fractures managed conservatively.

### Implications:

A larger multicentre survey of outcome after fractures is justified, to inform orthopaedic surgeons of the significant difference in outcomes following operative and conservative management of stump fractures.

### **A survey of client views on the cosmesis of lower limb prostheses**

*Dr Raj Khurana, Specialist Registrar in Rehabilitation Medicine, Dr JD Morrison, Consultant in Rehabilitation Medicine, Oxford*

### Background:

Satisfaction with prosthesis is an important determinant of its daily use and there is currently an ever increasing demand for expensive high definition cosmetic covers and state of art mechanical components. Given limited NHS resources, there is a need to understand client's views as to the relevant importance of these different prosthetic aspects.

### Aims of the study:

- To determine clients views on the physical attributes of their cosmesis and their body image
- To see whether clients prioritise high definition cosmesis or mechanical components

**Design, subjects and setting:**

A questionnaire was distributed to 100 consecutive lower limb prosthetic users attending clinic at Mary Marlborough Centre, Oxford.

**Methods:**

A 13 item questionnaire was developed covering demographics (3 items), satisfaction with cosmesis (6 items) and resource allocation (1 item). A rating scale was used from 1 (highly satisfied) to 4 (very unsatisfied).

**Results:**

- Satisfaction ratings were >75% for men and women across all cosmetic domains (shape; texture; colour and durability).
- Dissatisfaction rates double for women in all domains.
- >70% men and >85% women feel that cosmesis is important with regard to self image and public image.
- 66% overall favour increased spending on mechanical components rather than cosmesis.

**Conclusions:**

Prosthetic users are generally satisfied with their cosmesis but women are more dissatisfied than men with cosmetic colour and texture. Self image is important, however, mechanical components may be more important to users than cosmesis.

**Prosthetic Usage in patients with congenital transradial deficiency (transverse below elbow)**

*Dr B Mancel, Specialist Registrar in Rehabilitation Medicine (Norwich), Dr B Ramakrishna (Norwich) & Dr S Kirker (Cambridge), Consultants in Rehabilitation Medicine*

**Background:**

It is generally recognised that patients with congenital transradial deficiency make more use of functional prostheses in adult life when they have been fitted early in childhood.

**Aim:**

To investigate the prevalence of functional prosthetic usage in congenital transverse transradial deficiency in patients who have reached adulthood.

**Methodology:**

Retrospective study of case notes of all patients with congenital transradial deficiency currently registered with one DSC.

**Results:**

28 patients with congenital transradial deficiency attend this DSC, 21 have reached adulthood. Out of these 21, 11 are male and 10 female. Their ages range from 20 to 79 years. They have been followed for a period of 18 to 61 years (mean 35 years).

9 patients were first fitted before reaching one year of age and 12 patients were fitted after one year of age (range 1.5 to 32 years).

Out of 9 fitted before age one, 3 do not use any prostheses, 2 use cosmetic prostheses and 4 use functional prostheses.

Out of 12 fitted after age one, 8 do not use any prostheses, 3 use cosmetic prostheses and 1 uses a functional prosthesis.

With both groups together, out of 10 women, 3 do not use any prostheses, 5 use cosmetic prostheses and 2 use functional prostheses. Out of 11 men, 8 do not use any prostheses, 3 use functional prostheses with none using cosmetic prostheses. Amongst the 5 patients using functional prostheses in adulthood 4 were first fitted before one year of age and 1 was fitted after one year of age (at age three).

### **Conclusion:**

The results confirm the prospects of patients using functional prostheses in adulthood are significantly better if first fitted early (i.e. before age one) than if first fitted later. The prevalence of not using any prostheses is doubled if the first fitting is done after age one.

### **Discussion:**

The implication for practice is to fit children with their first prostheses before age one.

## **A study of the physical rehabilitation and psychological state of patients who sustained limb loss as a result of the Northern Ireland Troubles 1969-2003**

*L Graham, Specialist Registrar in Rehabilitation Medicine, Sheffield*

### **Background:**

The Troubles in Northern Ireland have been ongoing since 1969 and have resulted in a total number of deaths in excess of 3600. Injuries and deaths have been borne mostly by innocent civilians.

### **Aims:**

To benchmark the psychological state and physical rehabilitation of the patients who have sustained limb loss as a result of the Troubles and to determine their satisfaction with the period of primary prosthetic rehabilitation and the artificial limb.

### **Method:**

A questionnaire was posted to 115 patients who had artificial limb fitting and rehabilitation. The main outcome measures were the SIGAM mobility grades, the General Health Questionnaire (GHQ12) and 3 screening questions for Post Traumatic Stress Disorder (PTSD).

### **Results:**

64% response rate.

52 (69.3%) patients felt that the period of primary prosthetic rehabilitation was adequate.

33 (53.2 %) respondents were satisfied or very satisfied with how their artificial limb had been made.

32 (54.2%) of lower limb amputees graded themselves SIGAM C or D. Significant stump pain and symptoms of PTSD were all associated with lower SIGAM scores.

9 (56.3%) of upper limb amputees used their prosthetic limb in a functional way.

33 (45.8%) patients showed psychiatric caseness on the GHQ 12. and 50 (68.5%) had symptoms of PTSD.

### **Conclusions:**

Most patients felt that the period of physical rehabilitation had been adequate. Those who did not were more likely to be having symptoms of PTSD and psychiatric caseness. This has implications for provision of psychological intervention for these patients.