



TOTAL AND UNICONDYLAR KNEE ARTHROPLASTY PRE-OPERATIVE OXFORD KNEE SCORING : DO THE POPULATIONS DIFFER?

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Introduction

In the NJR 4th Annual report (2007) there were **57 597** Knee operations entered into the registry (1st Jan and 31st Dec 2006)

- **47 626** Cemented TKRS using 54 different brands (35% - PFC Sigma)
- **4 533** UKRs performed using 13 different brands (73% - Oxford III)

Background

Recent publication from the NJR suggested that prosthesis type influenced patient satisfaction at one year following knee arthroplasty¹

UKR was associated with lower levels of patient satisfaction when compared to cemented TKR

1. Baker et al : The role of pain and function in determining patient satisfaction following total knee arthroplasty: data from the National Joint Registry for England and Wales JBJS (Br) 2007

Summary of NJR findings

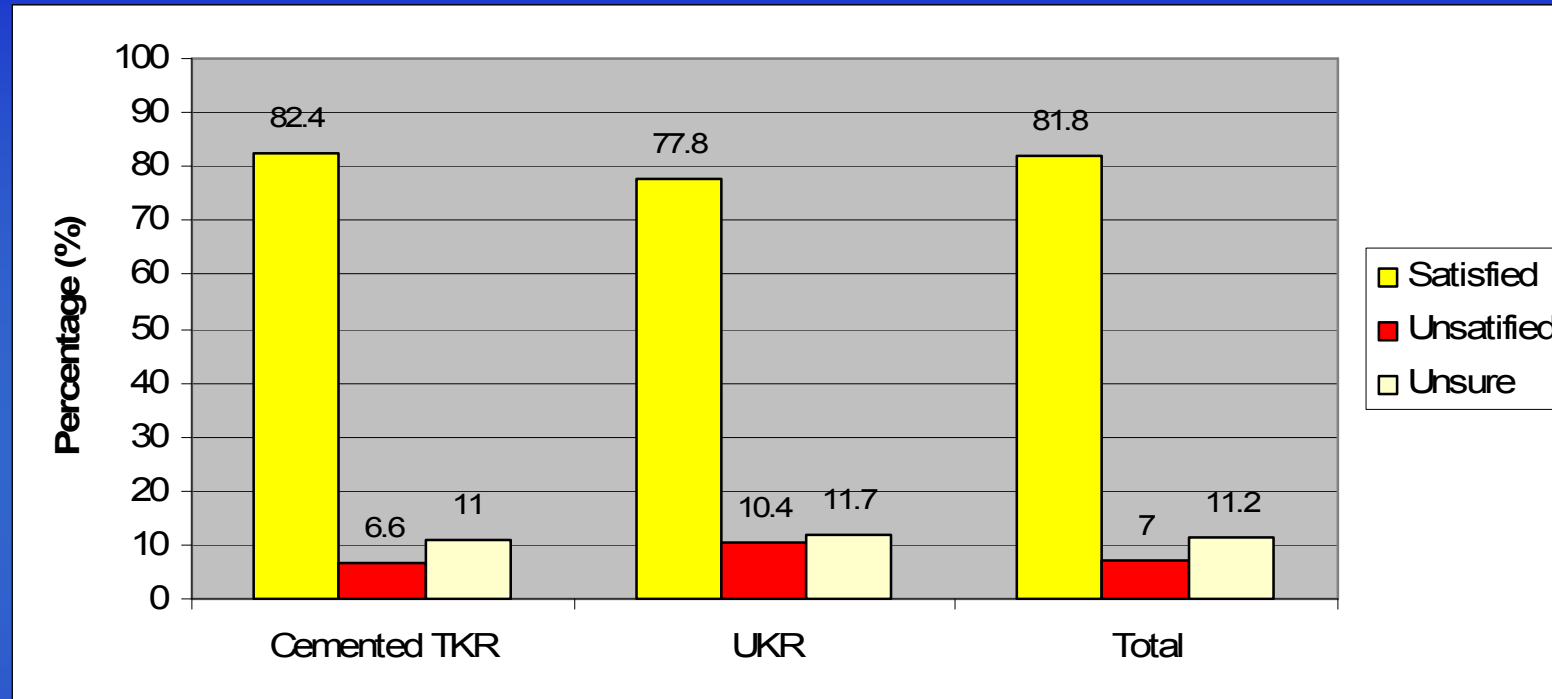


Figure 1: Satisfaction dependent upon Prosthesis type (Baker 2007)

Patient satisfaction was related to the post-op OKS...

So do the UKR patients have worse OKS?

Summary of NJR findings

	N	Mean OKS	Median OKS	SD	Range
Cemented TKR	6045	25.0	23	10.1	12-60
Unicondylar	538	23.8	21	10.0	12-59
Total	7230	25.0	22	10.1	12-60

Table 1: OKS dependent upon Prosthesis type (Baker 2007)

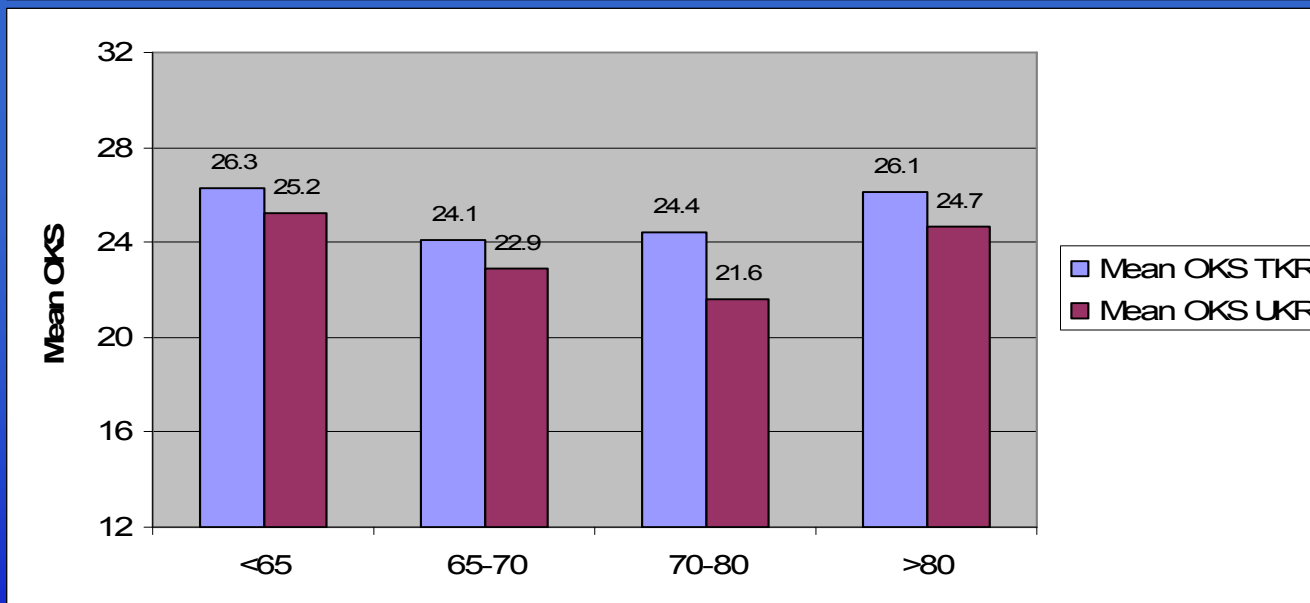
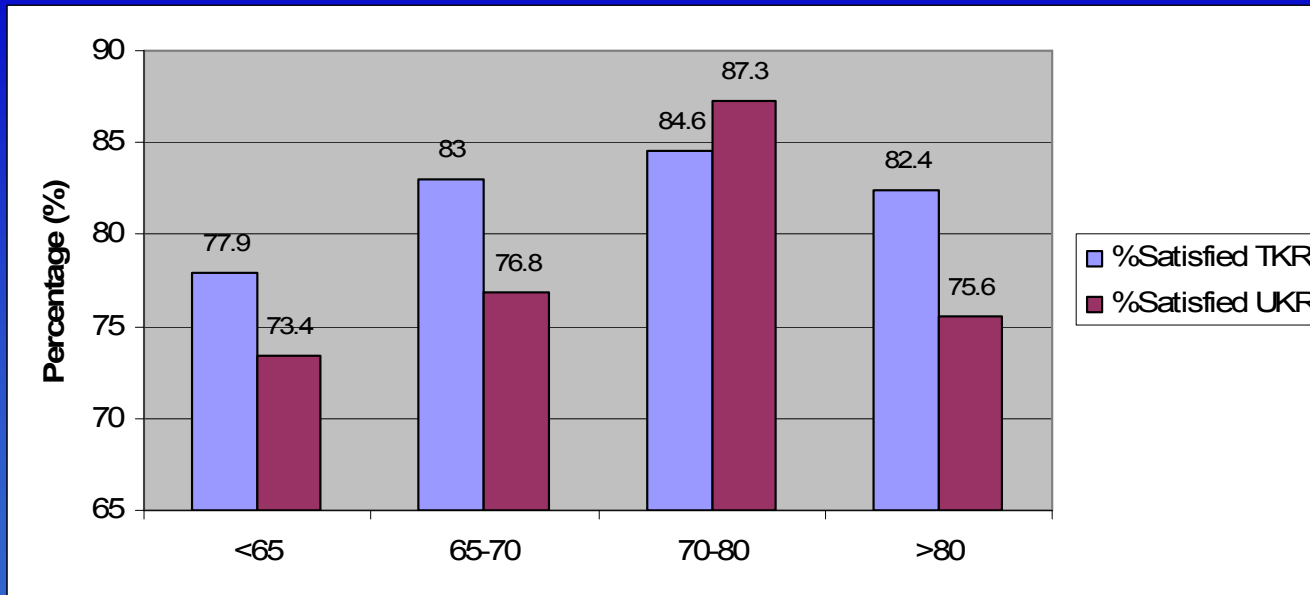


Figure 2 and 3: Effect of age on OKS and Satisfaction (Baker 2007)

Summary of NJR findings

- Regression analysis demonstrated lower satisfaction in UKR group irrespective of a number of clinical and demographic factors
- Study limited by inability to collect pre-op scores which have been shown to influence post-op outcome

(Fortin 1999, Nilsson 2002)

The Perception

“UKR is offered to patients with lesser disease”

“UKR patients have a decreased clinical profile”

“Only one compartment involved”

Does this explain higher levels of dissatisfaction?

Despite better final scores, is the change in OKS smaller than for TKR due to lower pre-op scores

Hypothesis

Patients listed for UKR have less severe disease and therefore a lower preoperative patient reported outcome score when compared to TKR

Methods

- Sample size calculation
- Retrospective analysis
- 76 patients (38 UKR:38 TKR) who underwent knee replacement under the care of a single surgeon
- OKS was recorded in the notes at a dedicated pre-assessment clinic

Methods

- Decision to offer UKR based on clinical and radiological criteria outlined by the Oxford group
- All patients who fitted criteria and were suitable for a unicondylar knee received one
- Only if they were not suitable did they undergo TKR

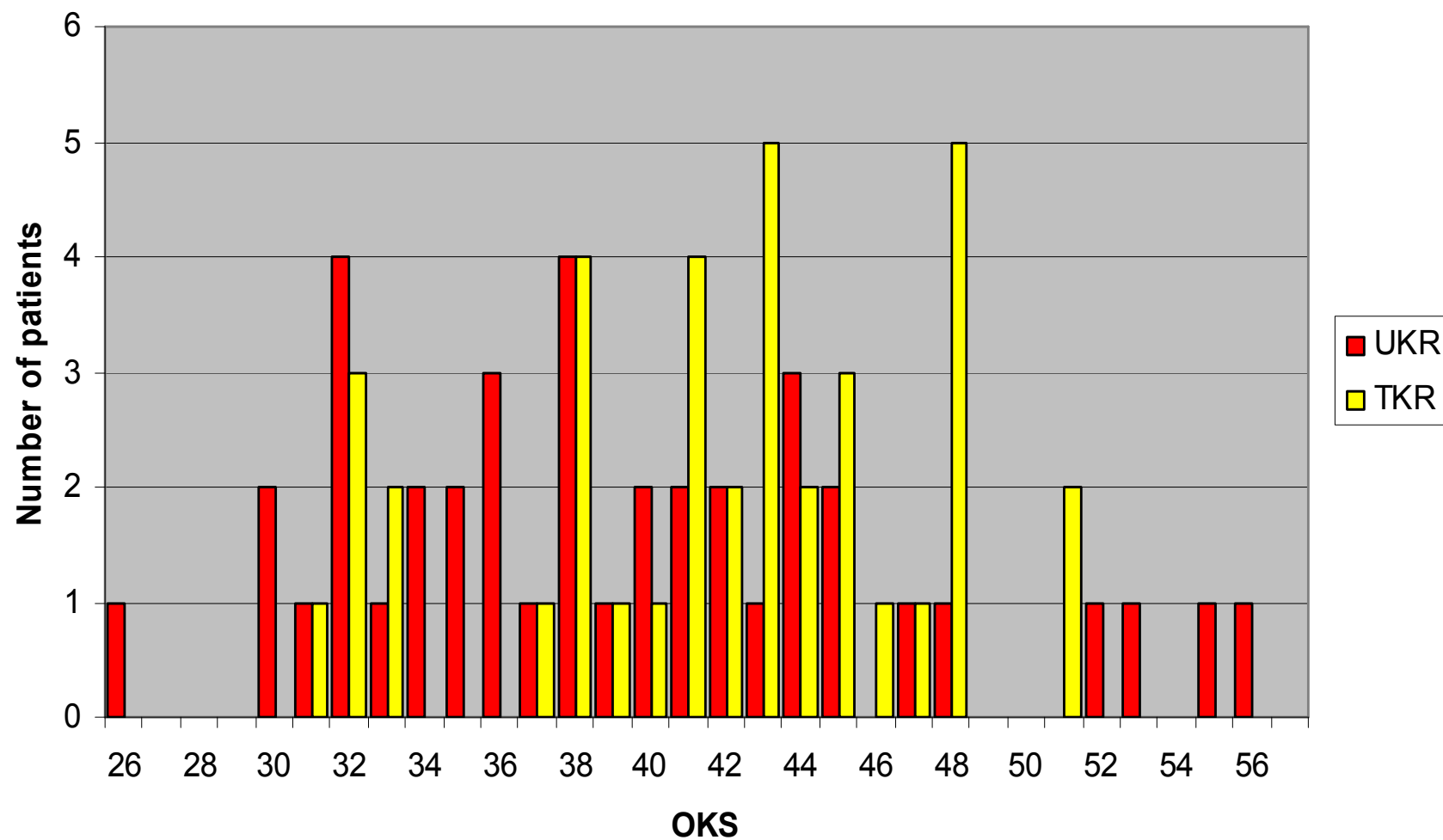
Choice of Patient - UKR

- Both cruciates intact
- Preserved lateral compartment
- Malalignment passively correctable
- FFD <15 degrees
- Flexion of at least 110 degrees
- CI – Inflammatory arthritis

Results

- 38 patients in either group
 - UKR - 16F:22M Mean age 64 years
 - TKR - 24F:14M Mean age 66 years
- The mean pre-operative OKS was:
 - 39.5 (26-56, SD 7.6) in the UKR group
 - 41.6 (31-51, SD 5.7) in the TKR group
 - No statistical difference between the groups ($p=0.18$)

Distribution of Pre operative OKS by prosthesis type



Discussion (1)

- Patients listed for knee replacement have significant pain and functional impairment
- Those suitable for UKR have similarly severe symptoms to those who are only eligible for TKR
- Less severe disease radiologically does not mean less severe pain and function clinically

Discussion (2)

- It remains unclear why patients undergoing UKR should be less satisfied when they have better post operative patient reported outcome scores
- It emphasizes the need for careful patient selection and counselling in patient undergoing UKR

Further Work

Ongoing collection of 12 months OKS on same cohort of patients (Complete July 08)

Any Questions???



BASK Edinburgh 2009