EKS Arthroplasty Conference
Best Current Practice in Europe

April 20-21, 2017
London, UK

PROGRAMME

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Welcome Address

Dear Colleagues,

The next EKS Arthroplasty Conference will be held on April 20 & 21, 2017 in London, UK.

The world of knee surgery is an interesting and exciting place right now. Publications in the last few months have shed light on some fascinating developments in our understanding of both fundamental principles of how natural joints work, and how artificial ones can help restore that natural function.

Technological progress now allows us to aim higher than we ever could before, and the field of outcome metrics has advanced to let both patients and purchasers of healthcare understand better the value of different interventions.

All this is set against a backdrop of continuing spending restraint: although the world is still going round, we all feel a bit politically cautious, so we cannot expect any let up in the pressures to contain costs any time soon.

What we must do instead is focus on the benefit that your products bring to patients, and the cost-effectiveness that our work demonstrates in comparison with most medical and surgical fields.

The faculty and delegates will combine to produce consensus in these matters that will empower surgeons and industrial partners in their dealings with the regulators and the insurance bodies.

So come to London in April 2017, to Westminster, where we are hosting the largest gathering of European Knee Arthroplasty Surgeons for a two day meeting devoted to the art of arthroplasty.

We look forward welcoming you to London and remain,

Yours sincerely,

Chris Dodd, EKS President
Justin Cobb & David Barrett, Local Organising Committee
Programme - Thursday, April 20

07.50 - 08.00 Welcome
Chris Dodd & David Barrett

From Technique to Design
Chairs: Tim Wilton & Fabio Catani

08.00 - 08.08 Introduction / Prosthesis design: Does it matter
Jan Victor, Belgium

08.10 - 08.18 Surgical choices and technique are paramount
David Dalury, United States

08.20 - 08.28 Design kinematics controls movement
David Barrett, United Kingdom

08.30 - 08.38 Sagittal stability can best be obtained with surface congruency
Fares Haddad, United Kingdom

08.40 - 08.48 Can we mimic natural function?
Andrew Shimmin, Australia

08.50 - 08.58 Cruciate retention is the best option
Ate Wymenga, The Netherlands

09.00 - 09.08 Let the implant speak
Andreas Halder, Germany

09.10 - 09.18 Current designs do not respect the soft tissues
Michel Bonnin, France

09.20 - 09.35 Discussion

Free Paper Session
Chairs: Jonathan Eldridge & Arun Mullaji

09.40 - 09.45 Is there a need for customized femoral components based upon the individual trochlear geometry of our patients?
Christophe Vercruysse, Belgium

09.45 - 09.50 Stable tibial fixation of a bi-cruciate retaining total knee arthroplasty: RSA in a single-blinded, randomized controlled trial comparing bi-cruciate with cruciate retaining TKA
Anders Troelsen, Denmark

09.50 - 09.55 External rotation of the femoral component increases asymmetry of the posterior condyles
Michel Bonnin, France

09.55 - 10.00 In vitro kinematics of a bicruciate retaining total knee arthroplasty
Thomas J. Heyse, Germany

10.00 - 10.05 Can complications of patellar replacement affect our choices?
Andrea Tecame, Italy

10.05 - 10.20 Discussion

10.20 - 10.50 Coffee Break & Special ePoster Sessions I, II & III on Level 3

Programme - Thursday, April 20

Alignment and Kinematics
Chairs: Johan Bellemans & Michel Bonnin

10.50 - 10.58 Kinematic alignment
Andrew Toms, United Kingdom

11.00 - 11.08 Kinematic alignment is misleading and dangerous
Siegfried Hofmann, Austria

11.10 - 11.18 Soft tissue guided alignment
Fabio Catani, Italy

11.20 - 11.28 An objective analysis on the matter
Thomas Luyckx, Belgium

11.30 - 11.45 Discussion

Free Paper Session
Chairs: David Barrett & Paolo Adravanti

11.50 - 11.55 The effect of flexion of the femoral component in TKA: A musculoskeletal simulation study
Sebastiaan van de Groes, The Netherlands

11.55 - 12.00 Limb mechanical alignment measured with navigation peroperatively is significantly different from alignment measured on postoperative full-length scanograms after TKA
Arun Mullaji, India

12.00 - 12.05 What load balances the native knee?
Matthias Verstraete, Belgium

12.05 - 12.10 Relationships between simulated kinematics and patient reported outcomes during activity following total knee arthroplasty
Andrew Shimmin, Australia

12.10 - 12.15 High rate of distal overstuffing of the lateral distal condyle and trochlea facet with mechanically aligned TKA
Charles Rivière, United Kingdom

12.15 - 12.20 Bicruciate retaining knee prostheses do mimic normal knee stability under passive conditions
Nele Arnout, Belgium

12.20 - 12.25 Discussion

12.25 - 14.00 Lunch on Level 3 and Satellite Symposia on Level 4
Programme - Thursday, April 20

Great Debate: How Best to Achieve your Target?
Chairs: Justin Cobb & Jan Victor

14.00 - 14.08 Conventional instrumentation - Proven to be simple, reliable and cost effective
Tim Wilton, United Kingdom

14.10 - 14.18 CAS
Nicolaas Budhiparama, Indonesia

14.20 - 14.28 PSI
Sebastien Parratte, France

14.30 - 14.38 Robots - The business case exists
Martin Roche, United States

14.40 - 14.48 Debate: Will short term cost considerations determine the future?
Challenger: Andrew Shimmin, Australia

14.50 - 15.05 Discussion

Free Paper Session
Chairs: Nick London & Alejandro Della Valle

15.10 - 15.15 Real-time reconstruction of 3D patient specific joint from RF ultrasound data
Mohamed Mahfouz, United States

15.15 - 15.20 Single-use instruments in total knee arthroplasty: A comparative evaluation of costs
Dario Bergadano, Switzerland

15.20 - 15.25 A new extramedullary referenced distal femoral cutting technique for total knee arthroplasty
Francesco Benazzo, Italy

15.25 - 15.30 Clinical validation of 3x technology for total knee arthroplasty
Geert Peersman, Belgium

15.30 - 15.55 Discussion

15.55 - 16.25 Coffee Break & Special ePoster Sessions IV, V & VI on Level 3

Programme - Thursday, April 20

Productivity and Arthroplasty: Generating Value for Patient, Payer and Surgeon
Chairs: Geert Peersman & Jean-Noël Argenson

16.25 - 16.33 Day case knee replacement
Jeffrey Kerina, United States

16.35 - 16.43 Payer focused: ‘What are the payers benefits in optimizing productivity and installing Joint Recovery Programs?’
Emmanuel Thienpont, Belgium

16.45 - 16.53 Surgeon focused: ‘Do surgeons benefit from Joint Recovery Programs?’
Andrea Baldini, Italy

16.55 - 17.10 Discussion

Free Paper Session
Chairs: Fares Haddad & Peter Ritschl

17.15 - 17.20 LIA with intraarticular catheter superior than single shot alone in TKA – Results of an RCT
Johannes Beckmann, Germany

17.20 - 17.25 Corticosteroid injection through lumbar epidural catheter reduced pain up to two months and provided better knee function up to six weeks after TKA - A double blinded RCT
Nattapol Tammachote, Thailand

17.25 - 17.30 Non-tourniquet-use during total knee arthroplasty shows no significant benefit
Michael Cremins, United States

17.30 - 17.35 Intravenous versus topical tranexamic acid administration in primary total knee arthroplasty: A meta-analysis
Jung-Ro Yoon, South Korea

17.35 - 17.40 The natural history of pain and neuropathic pain after knee arthroplasty?
A prospective cohort study of the point prevalence of pain and neuropathic pain after knee arthroplasty to a minimum three-year follow up
Jonathan Phillips, United Kingdom

17.40 - 17.55 Discussion

18.00 Reception on Level 3
### Programme - Friday, April 21

#### Patello-Femoral Arthroplasty
*Chairs: Jonathan Eldridge & Ate Wymenga*

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| 08.00 - 08.08 | *Indication*  
Sebastien Lustig, France |
| 08.10 - 08.18 | *Design*  
Arun Mullaji, India |
| 08.20 - 08.28 | *PFJR vs TKR: An RCT*  
Anders Odgaard, Denmark |
| 08.30 - 08.45 | *Discussion* |

#### Great Debate Partial Knee: What works?  
*Chairs: Chris Dodd & Justin Cobb*

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| 08.50 - 08.58 | *Fixed UKR*  
Andrew Porteous, United Kingdom |
| 09.00 - 09.08 | *Mobile UKR*  
David Murray, United Kingdom |
| 09.10 - 09.18 | *Lateral UKR*  
Jean-Noel Argenson, France |
| 09.20 - 09.28 | *What are we to believe?*  
Challenger: Fares Haddad, United Kingdom |
| 09.30 - 09.45 | *Discussion* |

#### Preserving the Central Pivot in Knee Arthroplasty  
*Chairs: Norberto Confalonieri & Emmanuel Thienpont*

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| 09.50 - 09.58 | *The case for Bi-Uni*  
Sergio Romagnoli, Italy |
| 10.00 - 10.08 | *The case for bicom*  
Norberto Confalonieri, Italy |
| 10.10 - 10.18 | *ACL deficient medial OA*  
Paolo Adravanti, Italy |
| 10.20 - 10.28 | *Why computer assistance is so important?*  
Alfonso Manzotti, Italy |
| 10.30 - 10.38 | *Bi-cruciate TKR surgical technique and experience*  
Anders Troelsen, Denmark |
| 10.40 - 10.55 | *Discussion* |
| 10.55 - 11.25 | *Coffee Break on Level 3* |

### Programme - Friday, April 21

#### Innovation and Hot Topics in TKA  
*Chairs: Francesco Benazzo & Roberto Rossi*

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| 11.25 - 11.40 | *Patient focused - ‘Why is there a need for optimised patient management?’*  
Henrik Kehlet, Denmark |
| 11.40 - 11.48 | *Sensors in TKA*  
Andrew Porteous, United Kingdom |
| 11.50 - 11.58 | *Robotics in TKA*  
Justin Cobb, United Kingdom |
| 12.00 - 12.08 | *Tourniquet in TKA*  
Nick London, United Kingdom |
| 12.10 - 12.25 | *Discussion* |
| 12.30 - 14.00 | *Lunch on Level 3 and Satellite Symposia on Level 4* |

#### Revision Knee Arthroplasty: Fixation Strategies  
*Chairs: Andrea Baldini & Philip Chapman-Sheath*

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| 14.00 - 14.08 | *Cementless vs cemented stem extensions: Here is the available evidence*  
Gijs Van Hellemondt, The Netherlands |
| 14.10 - 14.18 | *Metaphyseal sleeves do provide excellent fixation in revision TKA*  
Ridhian Morgan-Jones, United Kingdom |
| 14.20 - 14.28 | *Trabecular metal cones: How can you deal with bone loss without them?*  
Alejandro Gonzalez Della Valle, United States |
| 14.30 - 14.45 | *Discussion* |
Programme - Friday, April 21

**Free Paper Session**
*Chairs: Susanne Fuchs-Winkelmann & Sebastian Parratte*

- 14.50 - 14.55  Femoral-tibial component size ‘mismatch’ is one factor in aseptic loosening after TKA? An analysis of 13,776 TKAs
  *Henry Clarke, United States*

- 14.55 - 15.00  Allograft reconstruction for extensor mechanism rupture in total knee arthroplasty
  *Alfredo Lamberti, Italy*

- 15.00 - 15.05  Biomechanical analysis of stems in revision total knee arthroplasty
  *Silvia Pianigiani, Belgium*

- 15.05 - 15.10  Relationship between perioperative data of a first surgical revision in total knee arthroplasty (RTKA) and the third revision surgery
  *Sergio González Rouse, Chile*

- 15.10 - 15.15  Are outcomes of revision for flexion instability the same as for other major etiologies?
  *Ashok Rajgopal, India*

- 15.15 - 15.30  Discussion

**Challenges in Revision**
*Chairs: Patrick Sussman & Gijs van Hellemondt*

- 16.00 - 16.08  Revision for infection
  *Bernhard Christen, Switzerland*

- 16.10 - 16.18  Peri prosthetic fractures around the knee
  *David Dalury, United States*

- 16.20 - 16.28  Mega-prosthesis
  *Wolfgang Klauser, Germany*

- 16.30 - 16.45  Discussion

- 16.50  Closing Ceremony
Special ePoster List

Special ePoster Session I: Assistive Technologies

SP1 2 year results of a randomised trial of robotic surgical assistance vs manual unicompartmental knee arthroplasty
Blyth M., MacLean A., Rowe P., Jones B. (UK)

SP2 PSI for high tibial osteotomy
Ollivier M., Parratte S., Argenson J.N. (France)

SP3 Presentation of non-surgical risk factors as a shared decision making tool
Solomon M., Bogue E., Twigg J., Shimmin A., Miles B. (Australia)

SP4 Does the surgeon’s experience influence tibial cut accuracy using patient specific cutting blocks in total knee arthroplasty?
Antoniadis A., Camenzind R., Schlär M., Bergadano D., Helmy N. (Switzerland)

SP5 Kinematic alignment does not put the tibial component in TKA at risk for early aseptic loosening: Results from a RSA RCT of patient-specific cutting blocks versus computer navigation
Dunbar M., Laende E., Stoker M., Richardson G. (Canada & USA)

SP6 Functional radiography as a means of integrating joint correctability into pre-planning workflows
Theodore W., Liu D., Twigg J., Wong K., Dickison D., Bogue E., Bare J., Miles B., Shimmin A. (Australia)

Special ePoster Session II: Kinematics and Design

SP7 Does kinematic alignment of modern TKA implants restore the patient’s native trochlear geometry?
Harris S.J., Dhaif F., Riviere C. (UK)

SP8 Knee stability after TKA surgery: A matter of ligament tension or muscular strength?
Verstraete M.A., Arnout N., Vermue H., Pringels L., Victor J. (Belgium)

SP9 The effect of tibial slope in cruciate-retaining total knee arthroplasty: A musculoskeletal simulation study

SP10 Maximal flexion after a bicruciate-substituted total knee arthroplasty

SP11 Influence of knee kinematics on patient satisfaction: A fluoroscopic evaluation
Van Onsem S., Verstraete M., Delys M., De Boey S., Van Der Straeten C., Victor J. (Belgium)

SP12 Patient early functional recovery after total arthroplasty with a kinematic-retaining knee prosthesis
Barlow I.W., Innocenti M., Harvey A.R. (UK & Italy)

Special ePoster Session III: Uni Knees

SP13 Patient reported outcome from the Oxford arthroplasty treatment pathway - Oxford cementless microplasty UKA compared to TKA using satisfaction and OKS-APQ
Price A.J., Bottomley N., Alvand A., Beard D., Jackson W. (UK)

SP14 Robotic assisted UKA to improve joint line restitution
Herry Y., Lustig S., Servien E., Neyret P. (France)

SP15 Ten-year survival of minimally invasive cementless Oxford phase 3 unicompartmental knee replacement

SP16 Fixed-bearing unicompound cyber knee replacement – As good as the national joint registry suggests?
Nicolai P. (UK)

SP17 Varus knee osteoarthritits: How can we identify ACL insufficiency?
Boettner F., Merle C., Waldstein W. (USA, Germany & Austria)

SP18 Gait patterns of patients with one unicompartmental and one total knee replacement

Special ePoster Session IV: Results and Revisions

SP19 Ninety day readmission rates in revision total knee arthroplasty
Della Valle C., Hilt K.D., Campbell D., Brozynski C. (USA)

SP20 Angular stability plates in the treatment of periprosthetic fractures of the distal femur
Giron F., Botti A., Giannini L., Buzzi R. (Italy)

SP21 Improved mid-term survival rate in revision total knee arthroplasty employing a ‘two-zones’ fixation algorithm
Baldini A., Balato G., Franceschini V., Lamberti A., Traverso F. (Italy)

SP22 Unexplained pain following total knee arthroplasty – Is rotational malalignment the problem?
Young S.W., Clarke H.D., Spangehl M.J. (New Zealand & USA)

SP23 Predictive factors of ‘forgotten knee’ acquisition after total knee replacement
Bercovy M., Eymard F., Charles-Nelson A., Kathsahan S., Chevalier X. (France)

SP24 Evaluation of the joint-line in CR and PS single radius total knee arthroplasty, using a classic surgical technique
Tampere T., Winnock de Grave P., Luyckx T., Missinne L., Gunst P., Van den Daele L., Victor J. (Belgium)
Special ePoster List

Special ePoster Session V: Materials and Infection

SP25 Oxidized zirconium vs. CoCr in total knee arthroplasty: 3D laser scanning of retrieved polyethylene inlays
Anderson F.L., Koch C.N., Eelpers M.E., Wright T.M., Haas S.B., Heyse T.J. (USA & Germany)

SP26 An in vitro determination of the antibacterial and cytotoxicity profiles of pure transitional metals in relation to orthopedics

SP27 Third generation TKA: Influence of polyethylene design on patients reported outcomes measures
Indelli P.F., Giori N., Maloney W. (USA)

SP28 Short interval in two-stage septic revision arthroplasty
Winkler T., Preininger B., van Roth P., Pfizter T., Lieb E., Trampuz A., Perka C. (Germany)

SP29 The microbial spectrum of total knee prosthetic joint infections in a tertiary orthopaedic centre
Mahendra M., Pakroo N., Helmsley C., Back D., Sandiford N., Conroy G. (UK)

SP30 The reliability of tibial anatomical landmarks and design of a practical guideline to improve TKA rotational alignment - A meta-analysis

Special ePoster Session VI: Rapid Recovery

SP31 Patient satisfaction after TKA: Influence of the functional rehabilitation
Van Onsem S., Verstraete M., Dhont S., Zwaenepoel B., Van Der Straeten C., Victor J. (Belgium)

SP32 A randomized clinical trial comparing adductor canal block vs. periarticular bupivacaine injection in total knee arthroplasty

SP34 A new prediction model for patient satisfaction after TKA
Van Onsem S., Van Der Straeten C., Arnout N., Deprez P., Van Damme G., Victor J. (Belgium & UK)

SP35 Pre-operative psychosocial predictors of outcomes at 5 years after total knee replacement

SP36 Muscular recovery and activity levels after total knee arthroplasty: Conventional vs. kinematic-retaining knee prostheses
Paszicsnyek T., Nepel C., Krois A. (Austria)

ePoster List

P1 Use of patient-specific cutting blocks reduces bloodloss after total knee arthroplasty
León V.J., Lisón A.J. (Spain)

P2 The evaluation of total knee replacement implanted with and without navigation system
Hatini Altimimi M.A., Drobniewski M., Borowski A., Synder M. (Poland)

P3 Prospective study of 100 total knee arthroplasty using PSI: Alignment and real advantages
Chemello C., Calzavara N., Scaico E., Costacurta G. (Italy)

P4 Effect of kinesio taping on immediate rehabilitation program for knee medial compartment osteoarthritis
Alobaidi A., Mohamed Z. (Iraq)

P5 Early experience of remote range of motion assessment following total knee arthroplasty
Wells F., Macbeth F., Picard F. (UK)

P6 Optimised conventional technique is as accurate as navigation for distal femur resection during TKA
Mullaji A., Shetty G.M., Khalifa A.A. (India)

P7 Varus-valgus stability and kinematic pattern achieved with a mechanical tensioning device in computer-navigated TKA
Mullaji A., Shetty G.M., Ray A. (India)

P8 Joint reconstruction from planar X-rays: Are we accurate enough for clinical use?
Mahfouz M.R., El Dakhakhni H., Johnson J.M., Cates H.E., Fatah E.A. (USA)

P9 Robotic-arm assisted total knee arthroplasty demonstrated accuracy to plan even during learning phase

P10 Robotic-arm assisted total knee arthroplasty demonstrated soft tissue protection
Hamp E., Bhowmik-Stoker M., Scholl L., Otto J., Jacofsky D.J., Mont M.A. (USA)

P11 Patient acceptance and compliance with telerehabilitation after TKA: A pilot study
Van Overschelde P., Van Onsem S., Serraeas W., Kalmar A. (Belgium)

P12 Knee joint contact pressure in response to the Atlas™ knee system

P13 Knee replacement: Validated scales and outcomes for measure effectiveness of the early rehabilitative protocol
Trotti C., Romei M., Guccione S., Spezia M., Belardi F., Borgatta G. (Italy & The Netherlands)

P14 The predictive value of shoe size for size of primary total knee arthroplasty
van Egmond J.C., Verburg H., Hesselber B., Mathijssen N.M.C. (The Netherlands)
P15 What affects high joint awareness in patients undergoing primary total knee arthroplasty?
Li D., Troelsen A., Ingelsrud L., Husted H., Gromov K. (Denmark)

P16 Total knee arthroplasty in acute traumatic events
Rossi S.M.P., Benazzo F., Ghiara M. (Italy)

P17 Does electric cautery reduced blood loss in total knee arthroplasty compared with knife? A double blinded RCT
Tammachote N., Kanitnate S. (Thailand)

P18 Articular pressure changes and their impact on joint space narrowing at two year follow-up: Interim results
McNicholas M. (UK)

P19 Flexion space balance using the transepicondylar axis or posterior condylar line for determining femoral component rotation during TKA
Nodzo S.R., Franceschini V., Sanchez Cruz D., Gonzalez Della Valle A. (USA)

P20 Midterm outcome of Avon patellofemoral arthroplasty for posttraumatic unicompartmental osteoarthritis
Konan S., Haddad F. (UK)

P21 Comparing cementing techniques in total knee arthroplasty: An in vitro study
Wetzes T., Van Erp J., Brouwer R., Bulstra S., Van Raay J. (The Netherlands)

P22 The selective enlargement of the extension gap by soft tissue release in total knee arthroplasty
Higashi H., Kaneyama R. (Japan)

P23 Decreasing incidence of manipulation under anesthesia: Using objective data to balance the modern TKR
Geller J., Murtaugh T., Lakra A. (USA)

P24 Preservation of joint levels in knee extension and flexion in total knee arthroplasty
Kaneyama R., Higashi H., Miura Y., Yoshii H., Ninomiya T., Munakata Y. (Japan)

P25 CT-analysis of components rotation and tibial coverage in a personalized knee system design
Ghiara M., Rossi S.M.P., Danesino G., Carone L., Benazzo F., Perelli S. (Italy)

P26 Radiological analysis of a new personalized knee system design
Benazzo F., Ghiara M., Rossi S.M.P., Perelli S. (Italy)

P27 Metabolic profiling of osteoarthritic joint fluid with correlation to metabolic disease, symptoms and functional outcome

P28 The correlation between synovial fluid metabolic profile and implant wear?

P29 Algorithmic pie-crusting of the medial soft tissue sleeve guided by sensing technology is safe and diminishes the use of constrained inserts during total knee arthroplasty
Amundsen S., Lee Y.Y., Gonzalez Della Valle A. (USA)

P30 LIA provides superior pain relief after TKA allowing immediate postoperative mobilisation
Van Overschelde P., Byn P., Servaes W., Kalmar A. (Belgium)

P31 Analysis of blood loss and early complications in primary total knee arthroplasty - Tourniquet vs no tourniquet
Farook M.Z., Tweed J., Jalgaonkar A., Smith G. (UK)

P32 Lateral-compartment osteoarthropathies are not associated with lateral-compartment cartilage degeneration in arthritic varus knees
Boettner F., Kasparek M.F., Faschingbauer M., Windhager R., Waldstein W. (USA, Germany & Austria)

P33 Progression of medial compartmental osteoarthritis 2-8 years after lateral closing wedge high tibial osteotomy

P34 Balancing a bicruciate retaining total knee replacement: The half-bearing solution?
Massin P. (France)

P35 Return to work and sports activities following osteotomies around the knee – A systematic review and meta-analysis

P36 Preliminary results of two different methods of PRP production in the treatment of knee osteoarthritis
Giron F., Mirabell C., Giannini L. (Italy)

P37 Long-term therapeutic effects of hyaluronic acid on knee osteoarthritis
Nunes A., Caetano A., Sobral L., Sousa J., Cardoso C., Lopes J., Salgueiro J. (Portugal)

P38 In vivo evaluation of porcine patella tendon as an appropriate experimental model for tendon scaffold implantation

P39 Effect of storage temperature and equilibration time on polymethyl methacrylate (PMMA) bone cement polymerization in joint replacement surgery

P40 Open wedge high tibial osteotomy results for medial compartment osteoarthritis
Elhassan H., Buckley R. (UK)

P41 Adipose tissue and cells scaffold implemented advanced cartilage repair
Siarretta F. (Italy)
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<td>Metal-on-polyethylene spacers in two stage revision of infected knee arthroplasty</td>
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<td>Does location of patellofemoral chondral lesion influence outcome after Oxford medial compartmental knee arthroplasty?</td>
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