



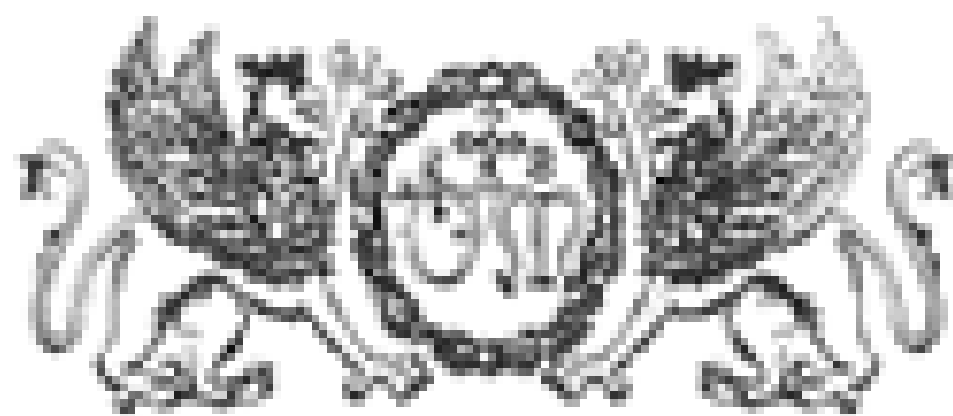
FRATTURE MEDIALI DEL FEMORE PROSSIMALE: QUALE PROTESI?

P. Antinolfi,

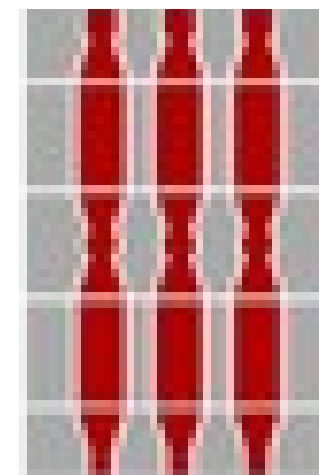
G. Ancillai, L. Lucchetta, A. Itro

**Clinica Ortopedica e Traumatologica Università degli Studi
di Perugia**

Direttore, Prof. A. Caraffa



Azienda Ospedaliera di Perugia



Regione Umbria



A.D. 1308
unipg

UNIVERSITÀ DEGLI STUDI
DI PERUGIA

CLASSIFICAZIONE

LATERALI

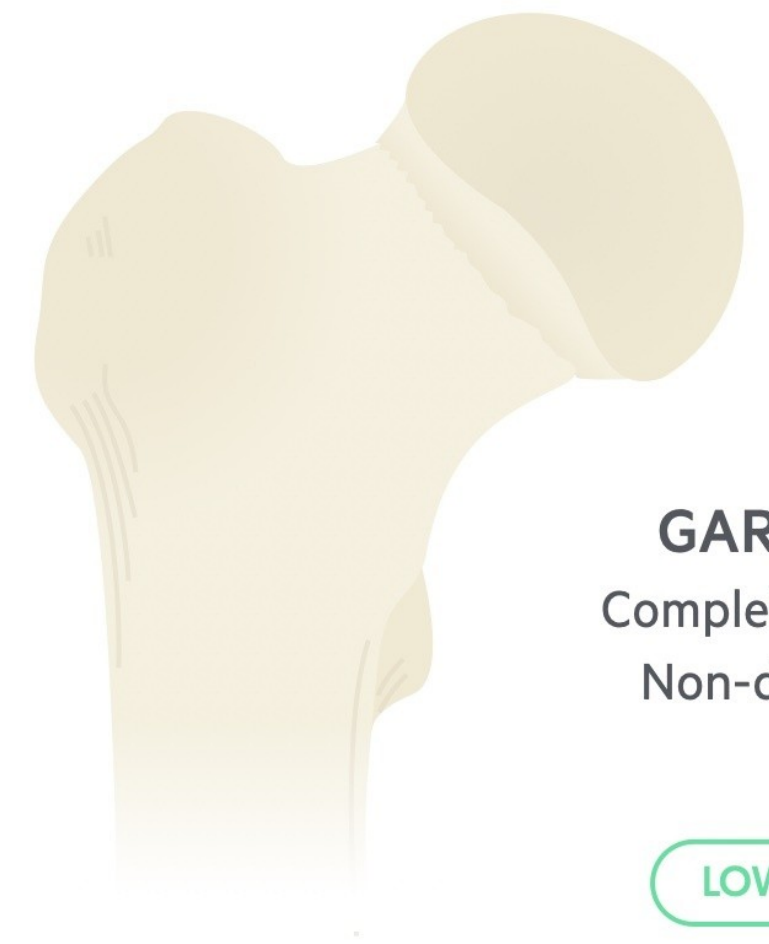


MEDIALI



GARDEN I
Incomplete fracture
Minimally displaced
Valgus impacted

LOW RISK



GARDEN II
Complete fracture
Non-displaced

LOW RISK



GARDEN III
Complete fracture
Partially displaced

HIGH RISK

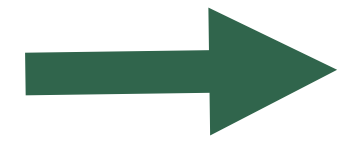


GARDEN IV
Complete fracture
Completely displaced

HIGH RISK

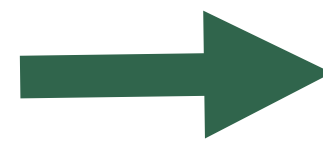
POSSIBILITA' DI TRATTAMENTO

CONSERVATIVO

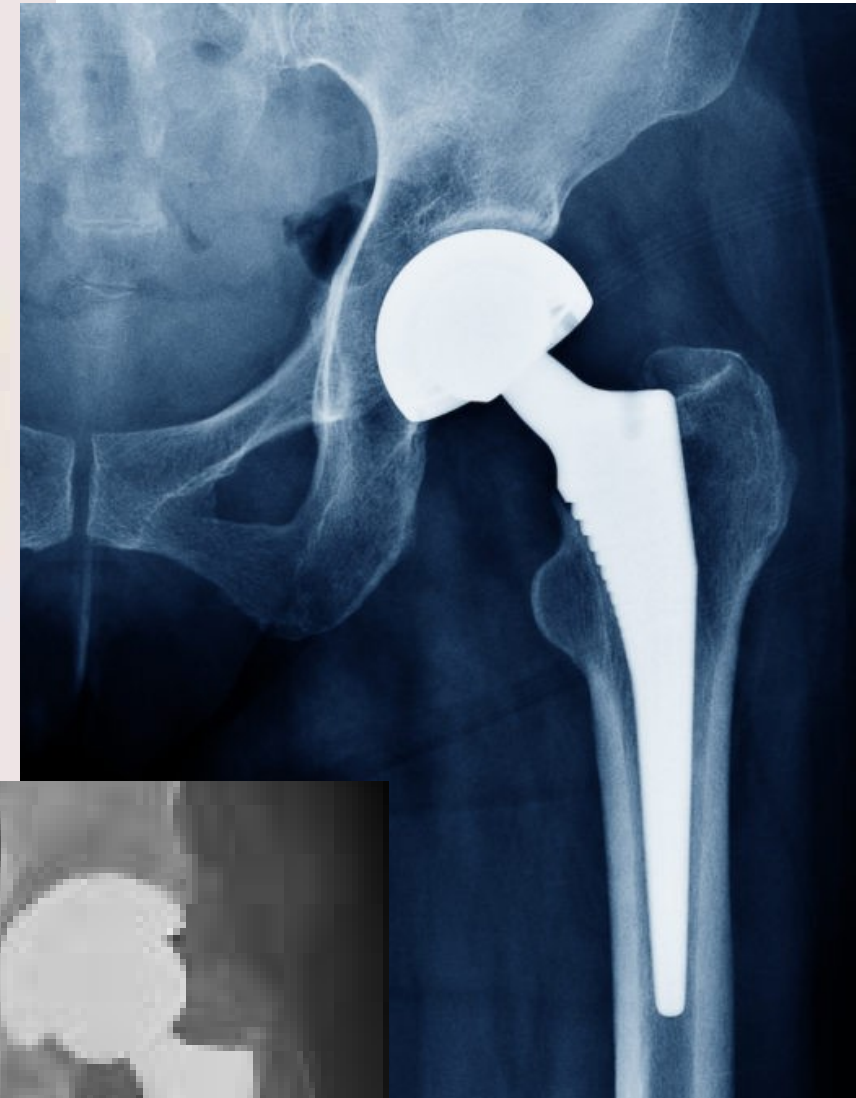


**CONTROINDICAZIONI ASSOLUTE
ALL'INTERVENTO CHIRURGICO**

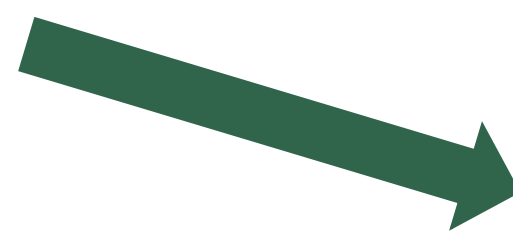
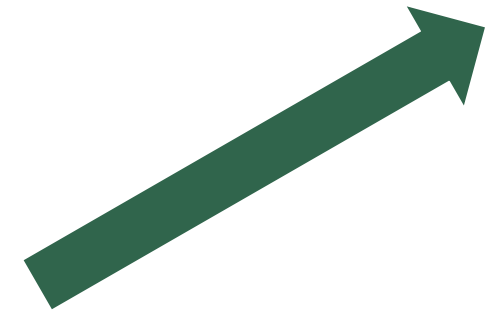
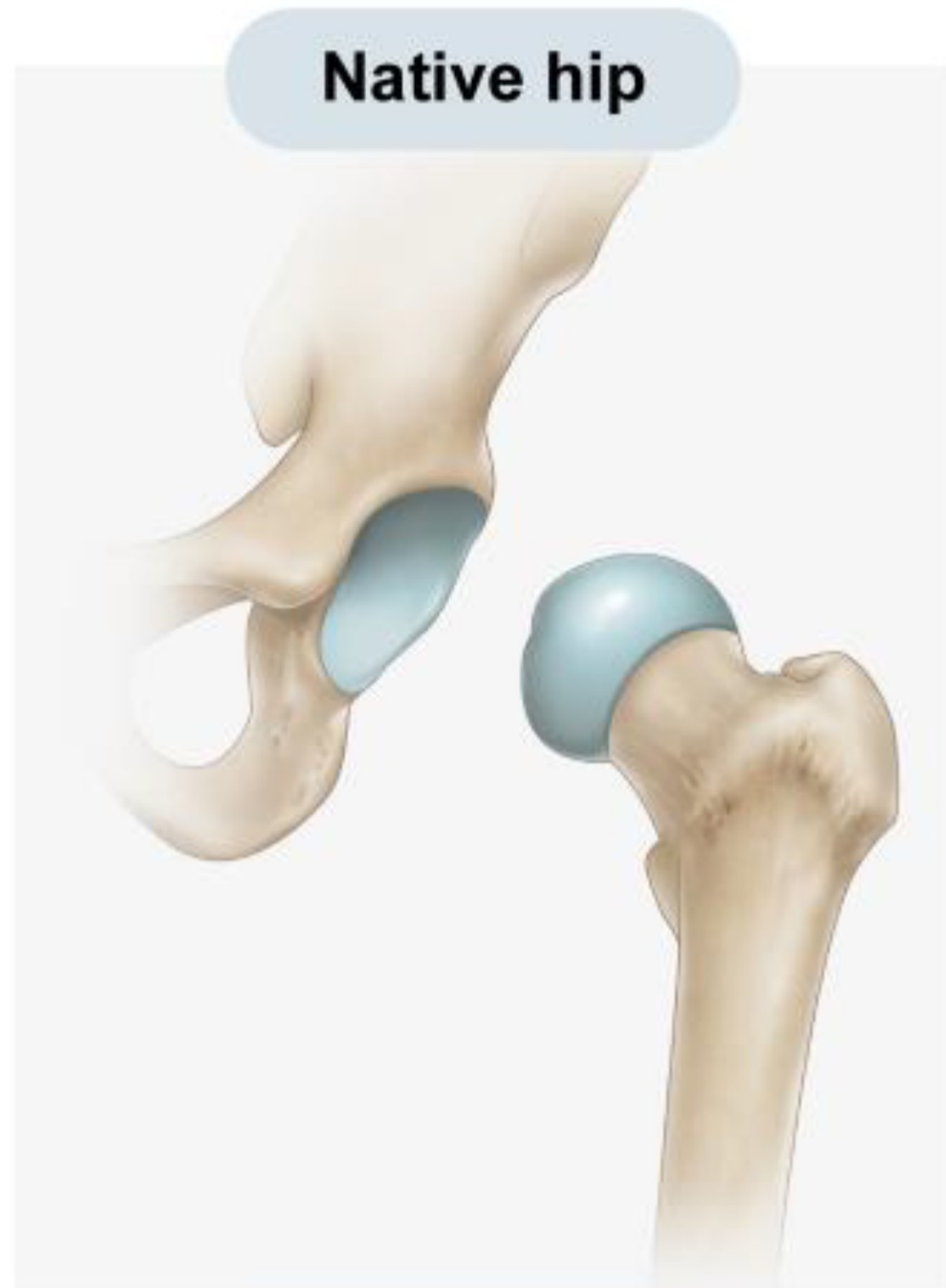
**INTERVENTO
CHIRURGICO**



- OSTEOSINTE
SI
- ENDOPROTE
SI
- ARTROPROT
ESI

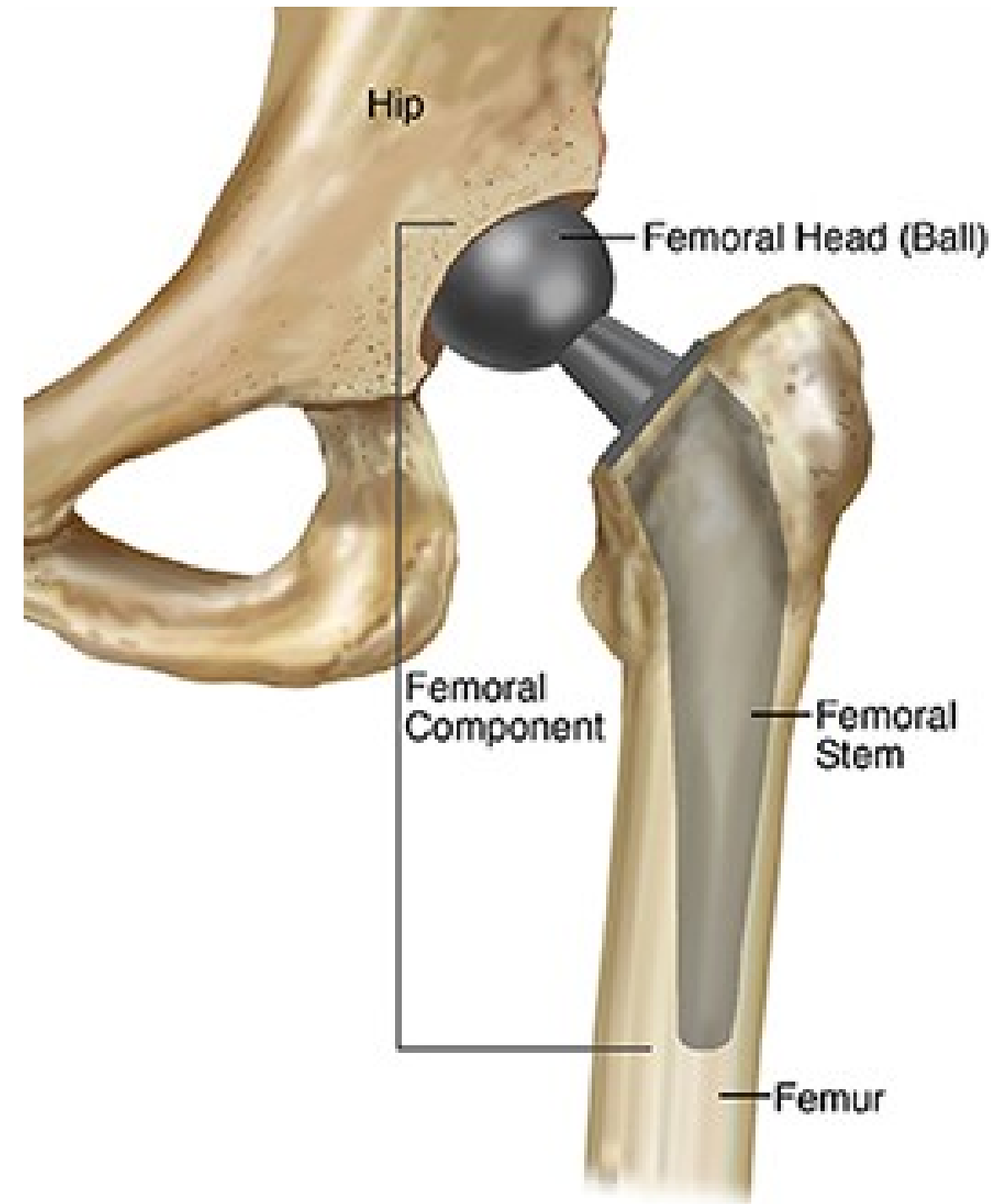


DIFFERENTI TIPI DI PROTESI



ENDOPROTESI

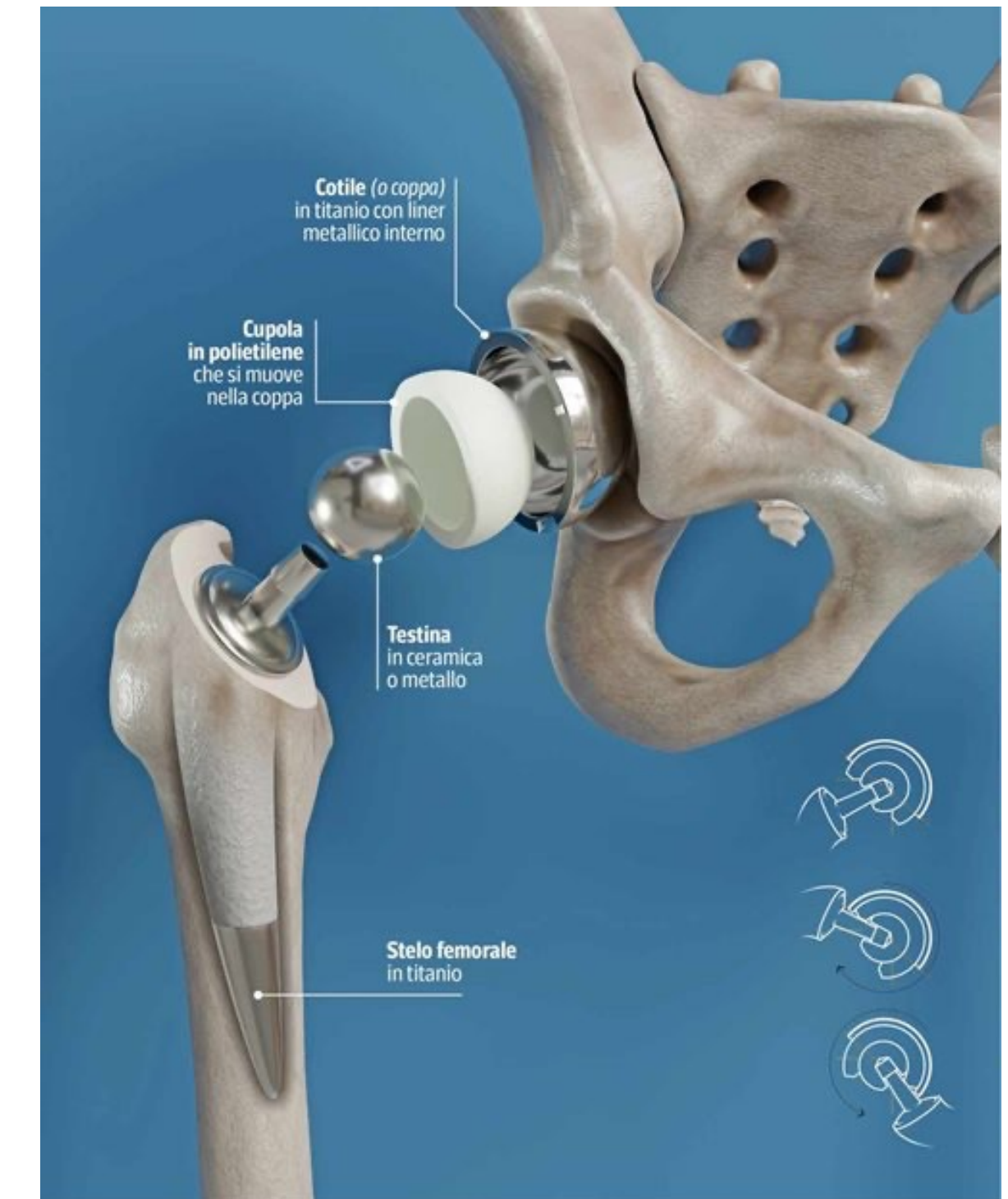
UNIPOLARE



Unipolar Versus Bipolar Hemiarthroplasty for Displaced Femoral Neck Fractures in Elderly Patients

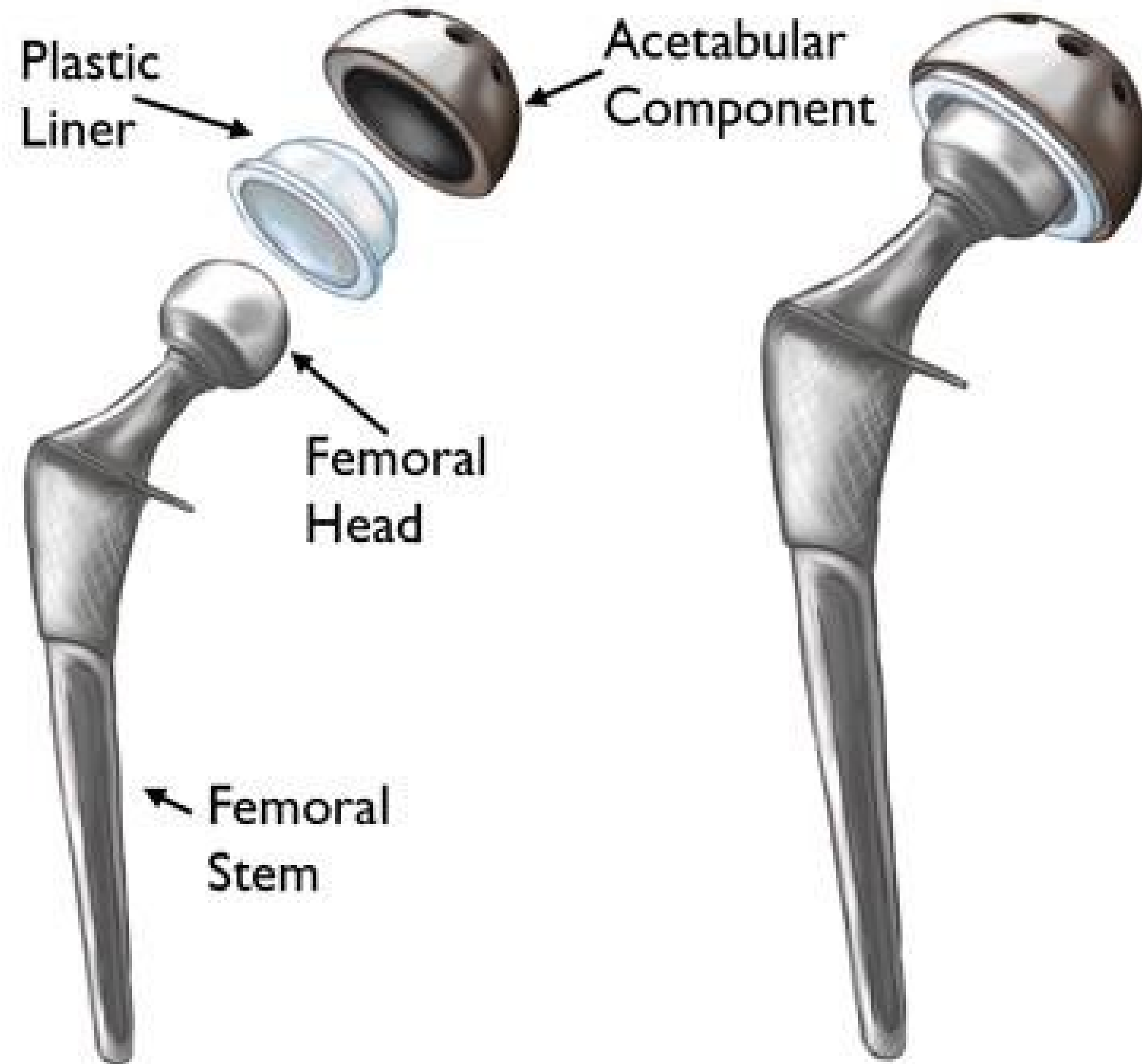
ZHIPING ZHOU, MD; FEI YAN, MD; WEIPING SHA, MD;
LIMING WANG, MD; XINGXIANG ZHANG, MD

BIPOLARE



**BIPOLARE = GOLD
STANDARD**

ARTROPROTESI



CEMENTATE VS PRESS-FIT

TECNICA

CEMENTATA

POLIMETILMETACRILATO (PMMA)

Resina acrilica che

**polimerizzandosi tramite una
reazione esotermica stabilizza**

l'impianto nell'osso.

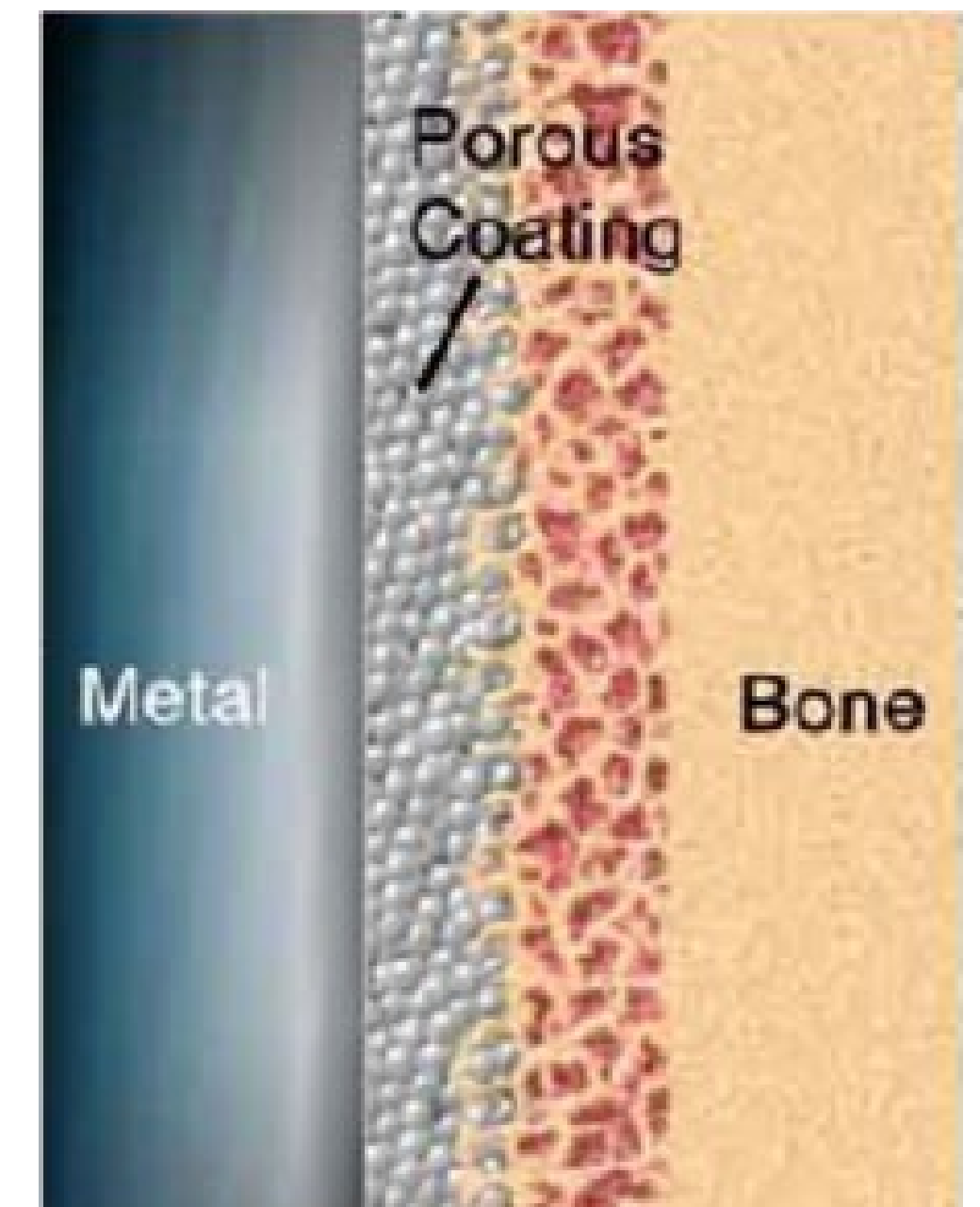
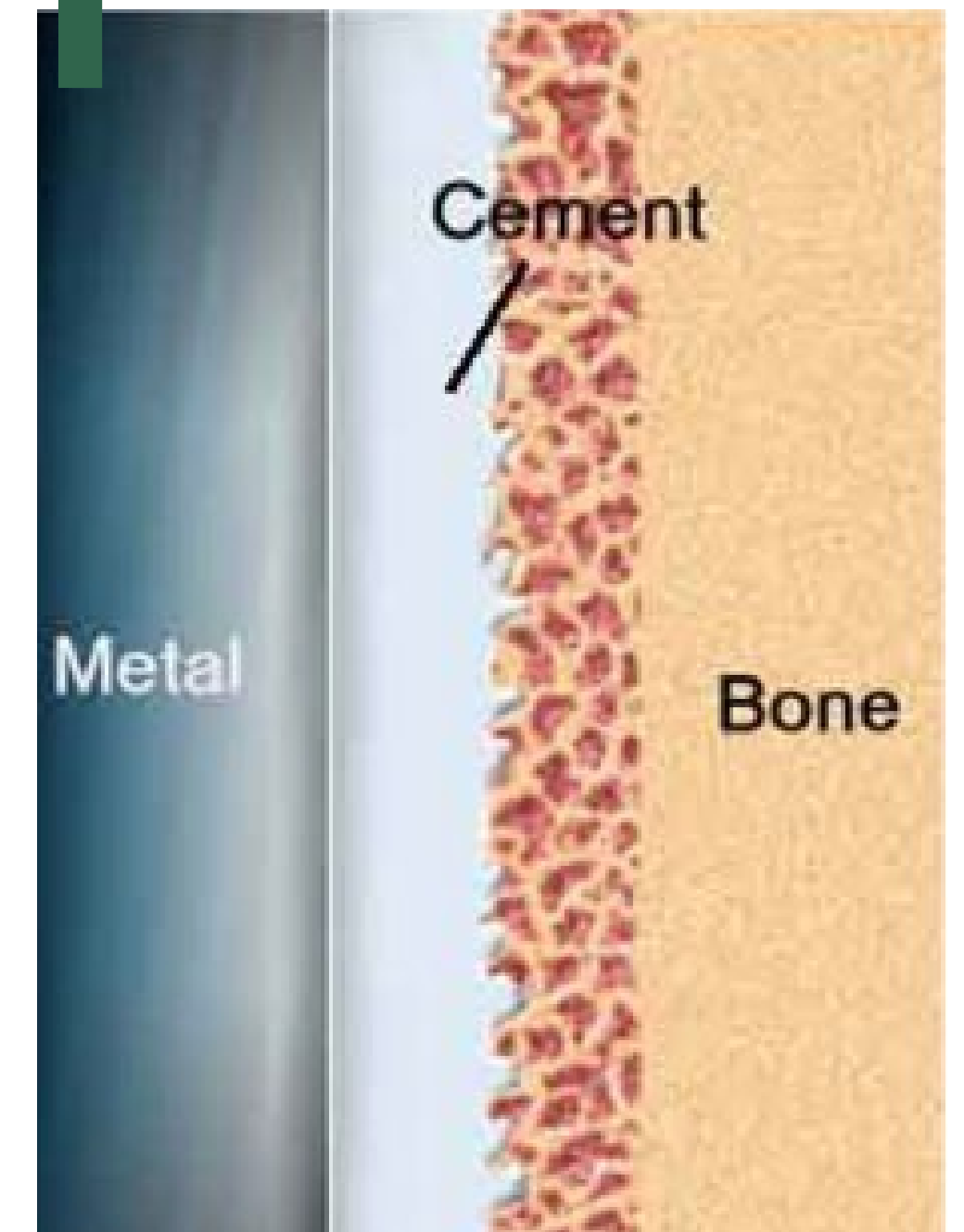
TECNICA PRESS- FIT

IN DUE TEMPI

**1) Press-Fit: Tramite la pressione
blocca la protesi**

meccanicamente in sede ossea

2) osteointegrazione



CEMENTATE VS PRESS-FIT

- **CEMENTATE**
 - MINOR DOLORE
 - POSTOPERATORIO RAPIDO RITORNO DELLA FUNZIONE
 - MINOR RISCHIO DI FRATTURA PERIPROTESICA
 - MIGLIOR POSIZIONAMENTO
 - REVISIONE GRAVE
RIMOZIONE CEMENTO

Cemented versus uncemented hemiarthroplasty for intracapsular hip fractures: A randomised controlled trial in 400 patients

M I Parker ¹, G Pryor, K Gurusamy

PRESS-FIT

- NO SINDROME DA CEMENTO
- NO MAGGIORE USURA DATA DAL CEMENTO
- TEMPO OPERATORIO MINORE

Original research article

Higher periprosthetic fracture rate associated with use of modern uncemented stems compared to cemented stems in femoral neck fractures

Jin Soo A. Song, Daryl Dillman, Dave Wilson, Michael Dunbar and Glen Richardson

HIP | HIP International

HIP International
2019, Vol. 29(2) 177–183
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DOI: 10.1177/1120700018772291
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SAGE

ENDOPROTESI O ARTROPROTESI D'ANCA?

INDICAZIONI: CONTROVERSE PER > 70 AA

ENDOPROTESI

- PAZIENTI ANZIANI
DEBILITATI

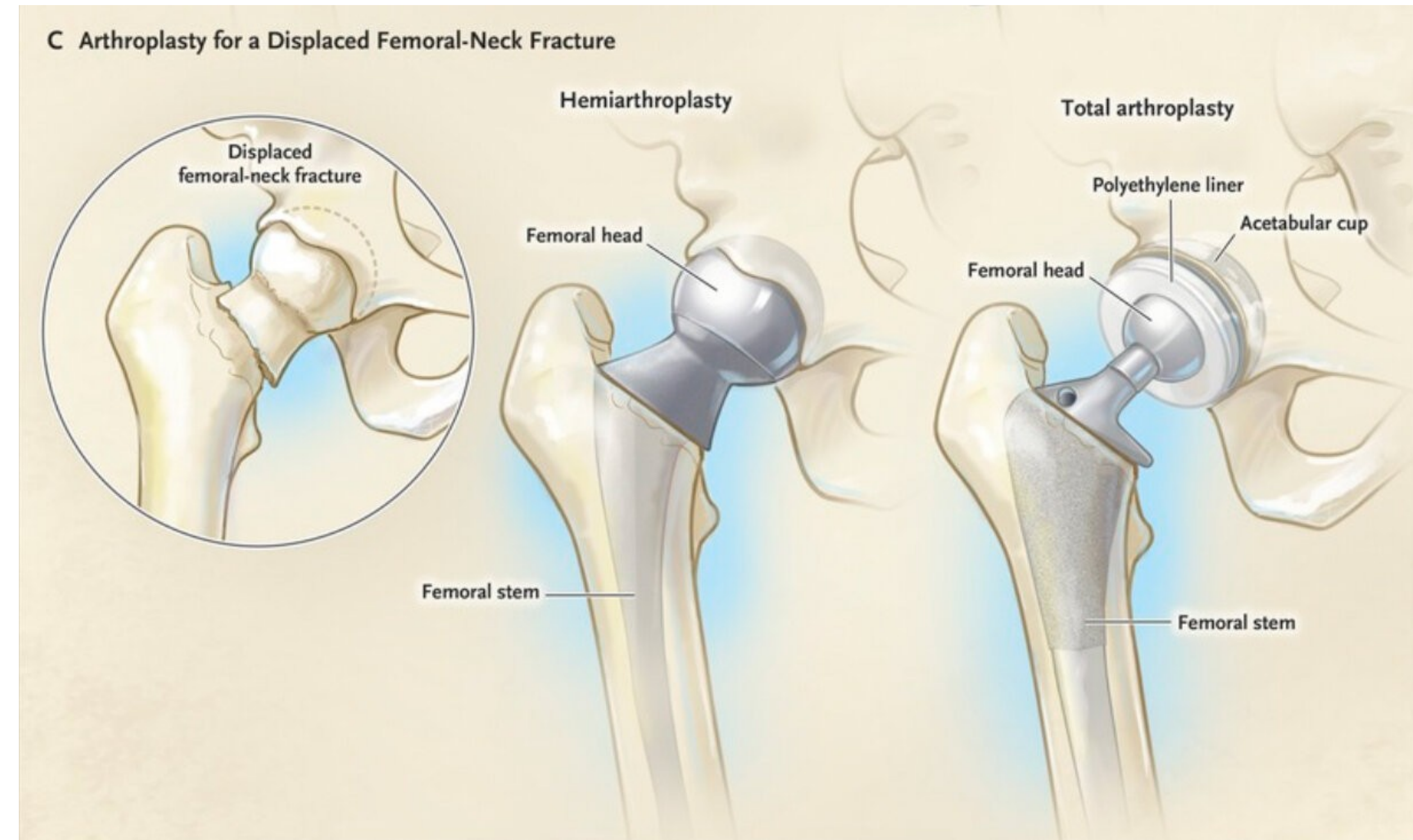
- OSTEOPOROTICI

ARTROPROTESI

- ANZIANI ATTIVI

- AFFETTI DA ARTROSI

- < 85 ANNI



Hemiarthroplasty or total hip arthroplasty for the treatment of a displaced intracapsular fracture in active elderly patients 12-YEAR FOLLOW-UP OF RANDOMISED TRIAL, 10.1302/0301-620X.99B2.BJJ-2016-0479.R1

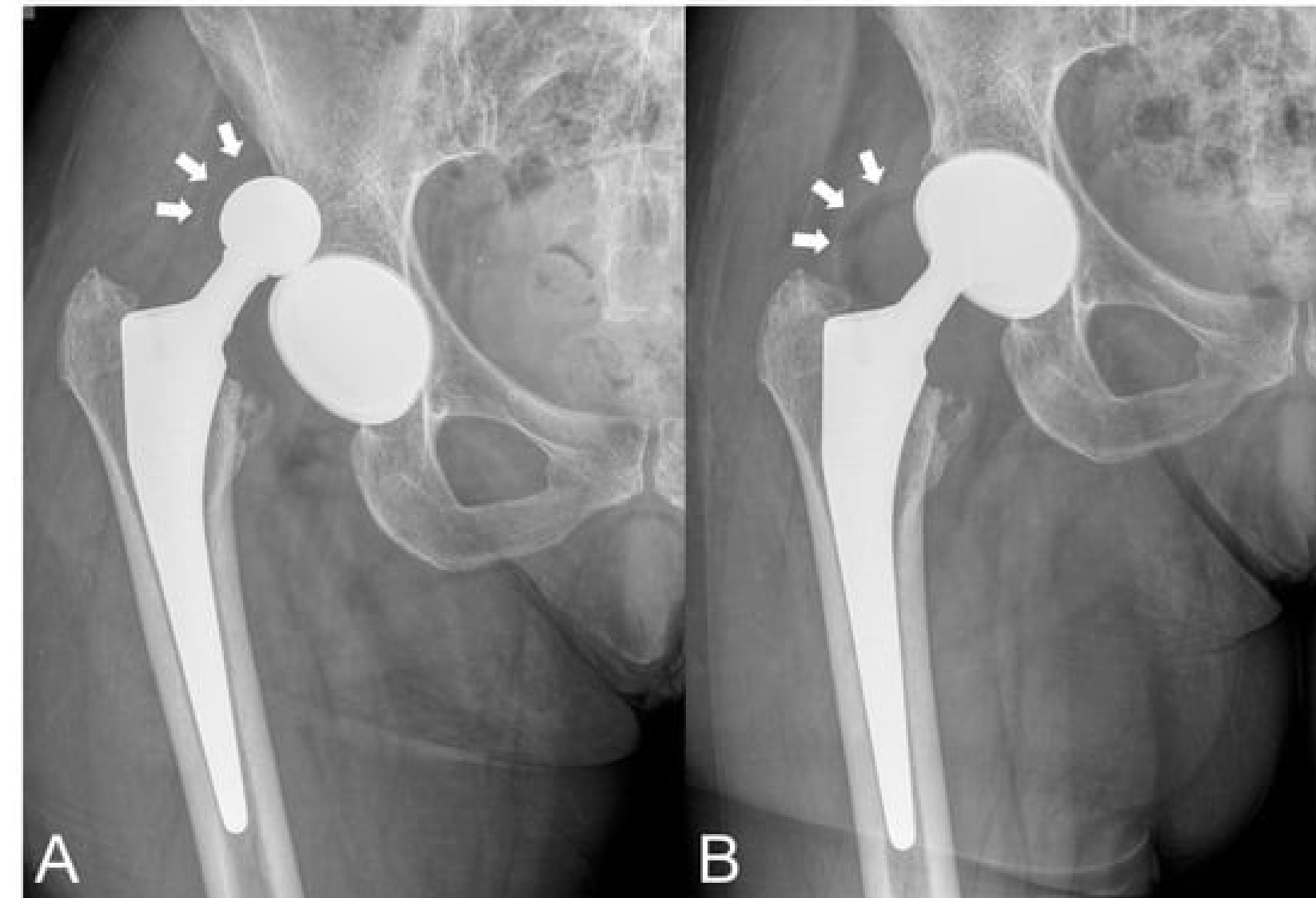
ENDOPROTESI O ARTROPROTESI D'ANCA?

DOPO 6 MESI RISCHIO DI LUSSAZIONE E REVISIONE IDENTICO

Wang F, Zhang H, Zhang Z, Ma C, Feng X. Comparison of bipolar hemiarthroplasty and total hip arthroplasty for displaced femoral neck fractures in the healthy elderly: a meta-analysis. *BMC Musculoskelet Disord.* 2015 Aug 28;16:229. doi: 10.1186/s12891-015-0696-x. PMID: 26316274; PMCID: PMC4552391.

RISCHIO DI REVISIONE/CONVERSIONE A 12 MESI UGUALE

Edelstein AI, Dillingham TR, McGinley EL, Pezzin LL. Hemiarthroplasty Versus Total Hip Arthroplasty for Femoral Neck Fracture in Elderly Patients: Twelve-Month Risk of Revision and Dislocation in an Instrumental Variable Analysis of Medicare Data. *J Bone Joint Surg Am.* 2023 Nov 1;105(21):1695-1702. doi: 10.2106/JBJS.23.00247. Epub 2023 Sep 6. PMID: 37678258; PMCID: PMC10609704



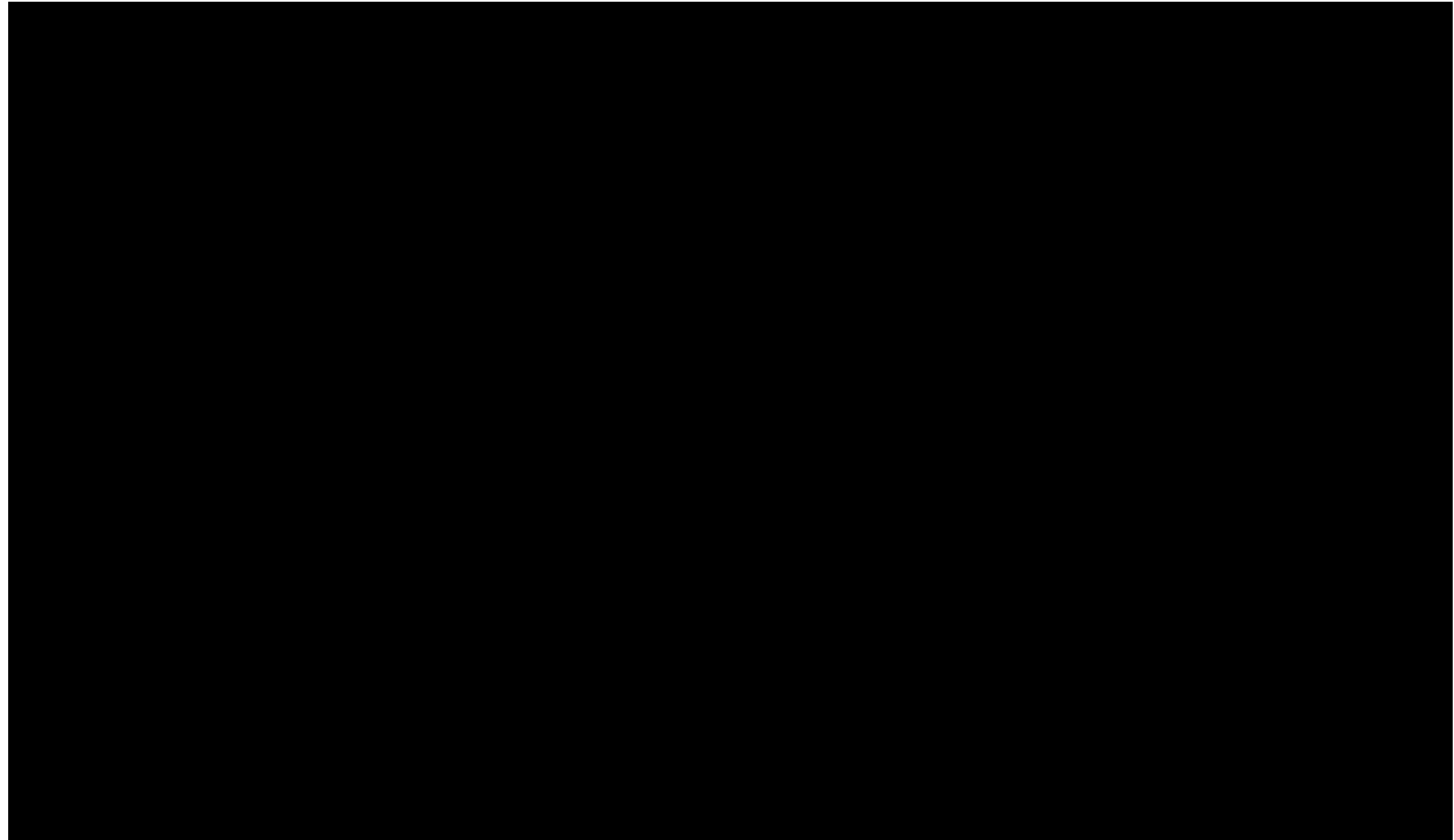
LA STABILITA'

***Stability is not the product of a
single action.***

***(Approach, component orientation,
tissue tension, muscle sparing,
offset, surgeon experience,
prosthesis design, Spinopelvic
parameters)***

It is the product of all of them!

H. Rodriguez, 2021



ENDOPROTESI O ARTROPROTESI D'ANCA?

**QUALE
IMPIANTO
CONSENTE
MAGGIORE
QUALITA' DI
VITA?**



ENTRAMBI!



MA.. NELL'ARTROPLASTICA TOTALE:

MAGGIOR FUNZIONE (HHS)

MAGGIOR SODDISFAZIONE (WOMAC)

MINOR DOLORE POSTOP (VAS)

> Clin Orthop Relat Res. 2001 Mar;(384):189-97. doi: 10.1097/00003086-200103000-00022.

Is the Harris hip score system useful to study the outcome of total hip replacement?

P Söderman ¹, H Malchau

Affiliations + expand

PMID: 11249165 DOI: 10.1097/00003086-200103000-00022

ESISTE UN LIMITE DI ETA' PER L'ENDOPROTESI? MOLTI STUDI

DIVERSE ETA' (80, 85, 75)

NON ESISTE UN CUT OFF PRECISO



QUINDI COSA FARE?



ESISTE UN LIMITE DI ETA' PER L'ARTROPROTESI? FORSE L'ETA' NON CONTA!

DUE QUESTIONI
FONDAMENTALI

1) ASPETTATIVA DI VITA:
SE < 4 ANNI MEGLIO ENDOPROTESI (MINOR RISCHIO
LUSSAZIONE VS THA)

2) RISCHIO OPERATORIO:
MAGGIOR RISCHIO SANGUINAMENTO
MAGGIOR TEMPO CHIRURGICO



A comparison of hemiarthroplasty with total hip replacement for displaced intracapsular fracture of the femoral neck

A RANDOMISED CONTROLLED MULTICENTRE TRIAL IN PATIENTS AGED 70 YEARS AND OVER

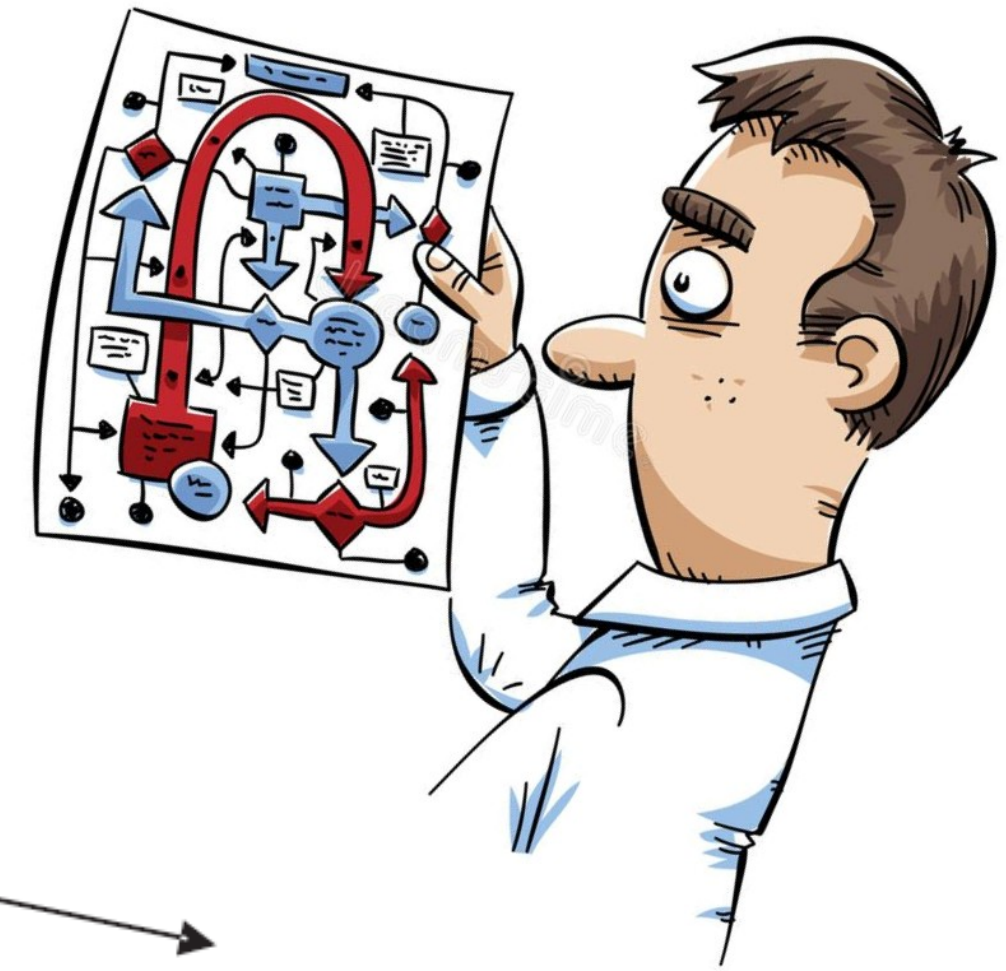
Hemiarthroplasty vs Total Hip Arthroplasty for the Management of Displaced Neck of Femur Fractures: A Systematic Review and Meta-Analysis

Daniel P Lewis ¹, Daniel Wæver ², Rikke Thorninger ², William J Donnelly ³

Affiliations + expand

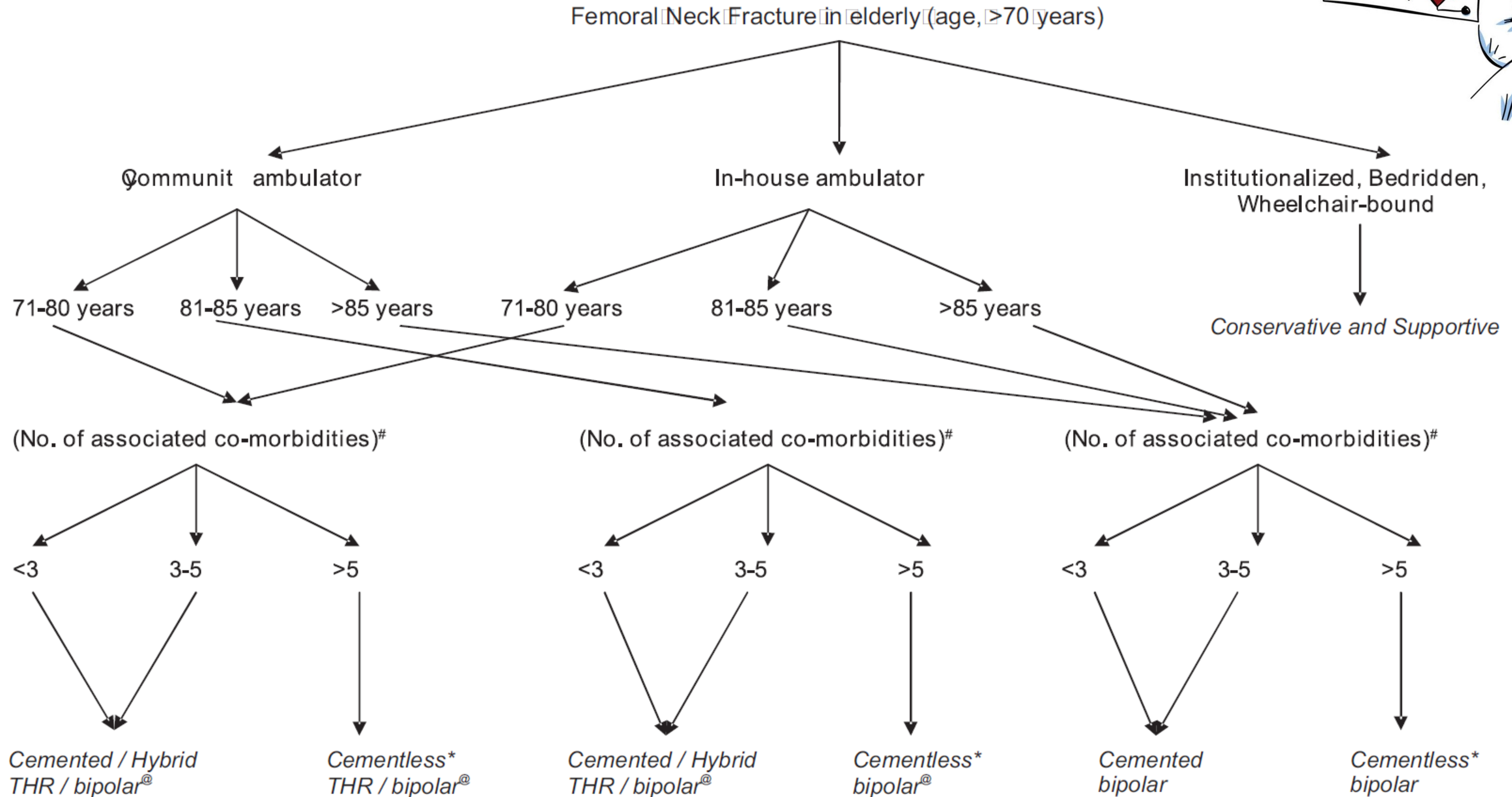
PMID: 31060915 DOI: 10.1016/j.arth.2019.03.070

RIASSUMENDO..



Prosthetic replacement in femoral neck fracture in the elderly: Results and review of the literature

SKS Marya, R Thukral, Chandeeep Singh



NEUROLOGICHE: DOBBIAMO CAMBIARE INDICAZIONE?

PARKINSON MAGGIOR RISCHIO DI LUSSAZIONE

MALATTIE MENTALI-ESITI DI ICTUS: NO MAGGIOR RISCHIO DI
LUSSAZIONE

ATTUALMENTE:

**STESSE INDICAZIONI SULLA
SCELTA TRA ENDO E THA**

Is there a higher risk of dislocation of hip hemiarthroplasty in patients with neuromuscular conditions? A clinical study of 3827 patients

Mahmoud Awadallah¹, Jose Blanco², Joshua Ong², Niroshan Kumar², Pushparaj Rajata², Martyn Parker²

Geriatric patients with dementia show increased mortality and lack of functional recovery after hip fracture treated with hemiprosthesis

Konrad Schuetze¹ · Alexander Eickhoff¹ · Kim-Sarah Rutetzki¹ · Peter H. Richter¹ · Florian Gebhard¹ · Christian Ehrnthaller²

Received: 14 April 2020 / Accepted: 21 August 2020
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NECESSARI ULTERIORI STUDI:

- 1)UTILIZZO DELLA DOPPIA MOBILITA'**
- 2)ACCESSO CON MINOR RISCHIO DI
LUSSAZIONE**

C'E' SPAZIO PER LA SINTESI NELL'ANZIANO?

SOLO GARDEN 1 -2

ASSOLUTAMENTE NO ARTRC

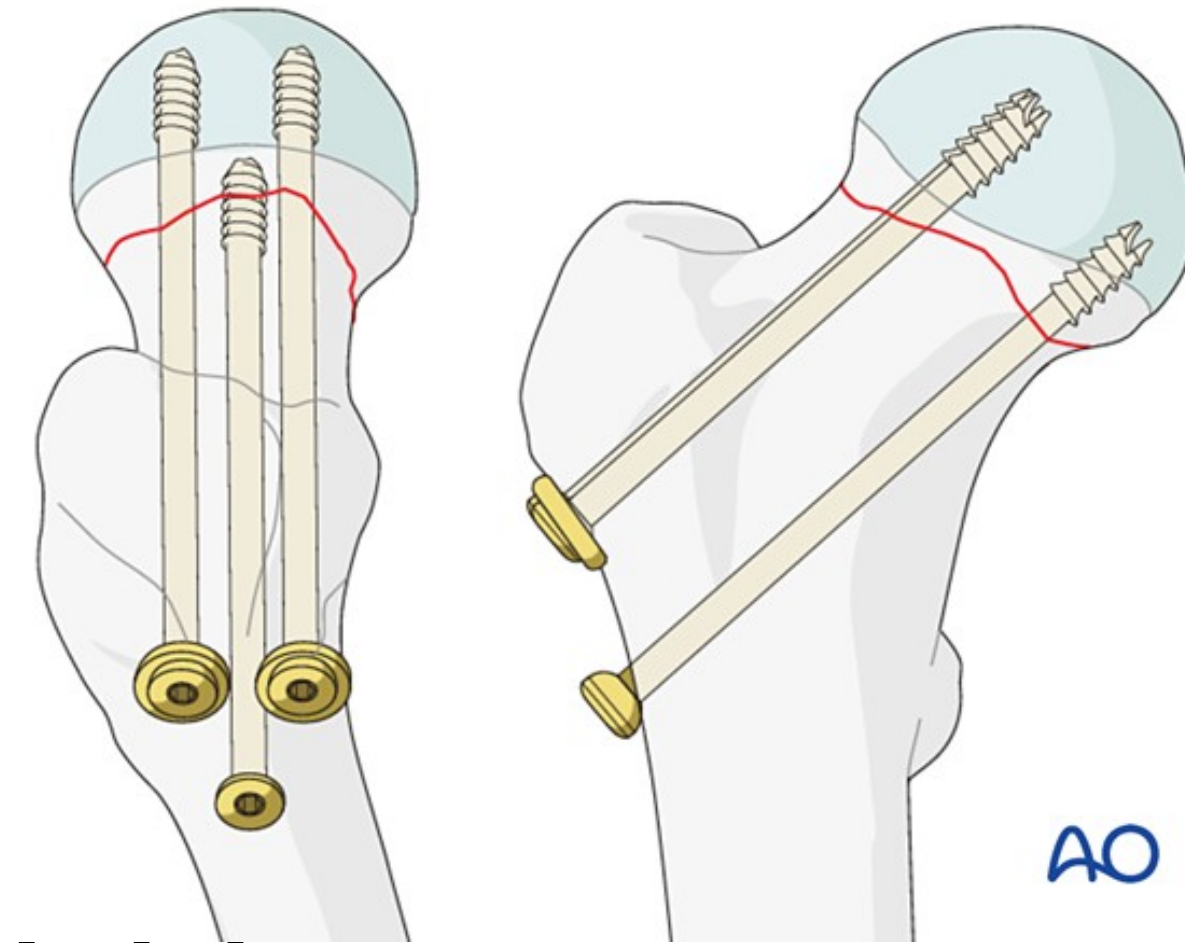
TOLLERANZA A INIZIALE PROTEZIONE DAL CARICO

Comparison of the clinical efficacy of three cannulated screws with parallel distribution and inverted triangular distribution in the treatment of femoral neck fractures in the elderly

[Jiuxiang Liu](#), [Qiang Zuo](#), [Hao Zhou](#), and [Xiaowen Huang](#)¹

Internal fixation of intracapsular femoral neck fractures in elderly patients: mortality and reoperation rate

[Marco Bigoni](#)^{1 2}, [Marco Turati](#)^{1 2 3}, [Giulio Leone](#)^{4 5}, [Agostino Dario Caminita](#)^{1 2},
[Fabio D'Angelo](#)⁶, [Daniele Munegato](#)^{1 2}, [Giovanni Zatti](#)^{1 2}



POSSIBILI ALTRI USI DA INDAGARE?

PAZIENTI AD ALTO RISCHIO, CONTROINDICAZIONE ALLA
PROTESI

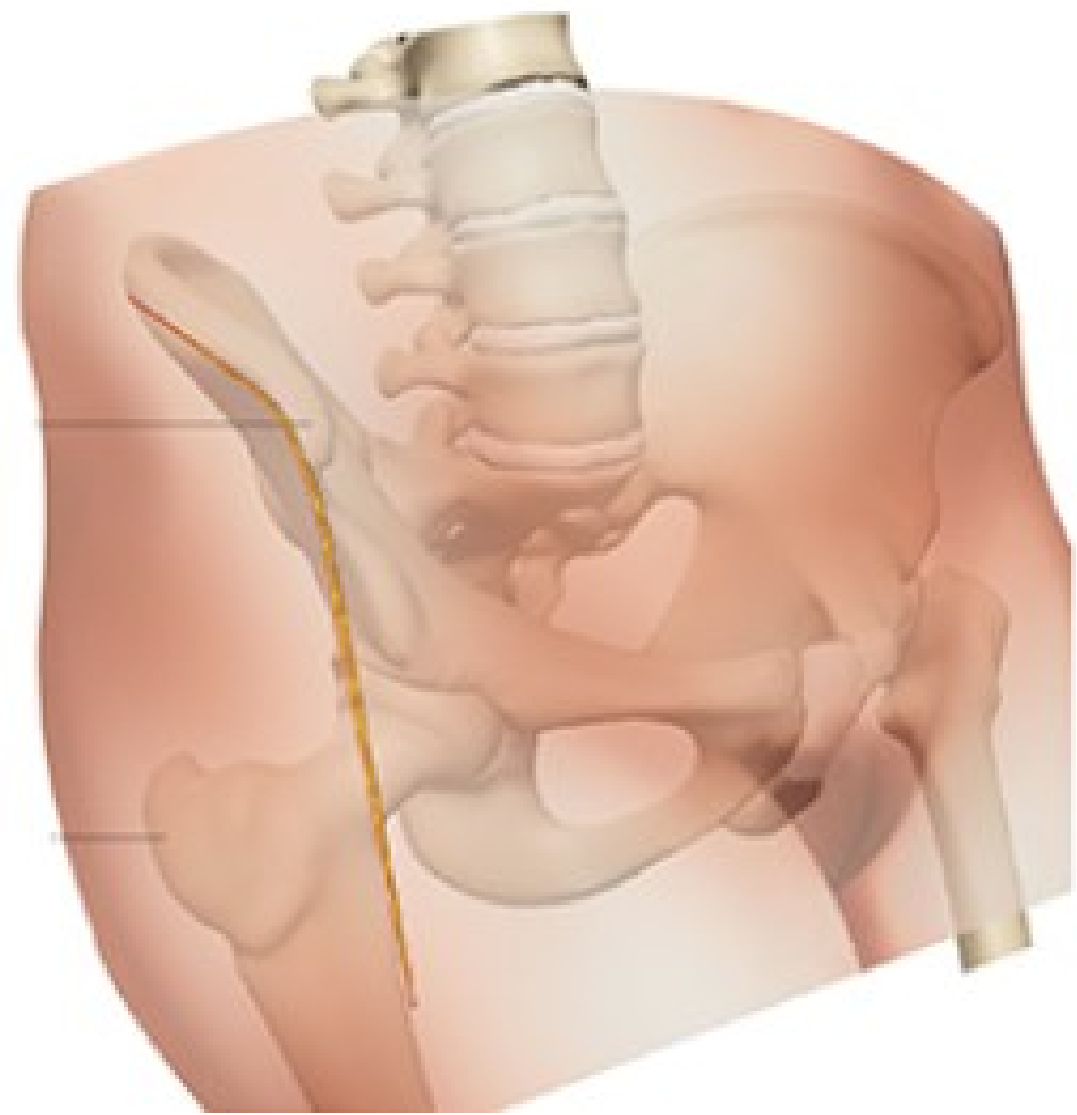
SCOPO ANTALGICO E NURSING IN ALLETTATI

OLTRE ALLA SCELTA DEL MEZZO DI SINTESI, COSA POSSIAMO MIGLIORARE?

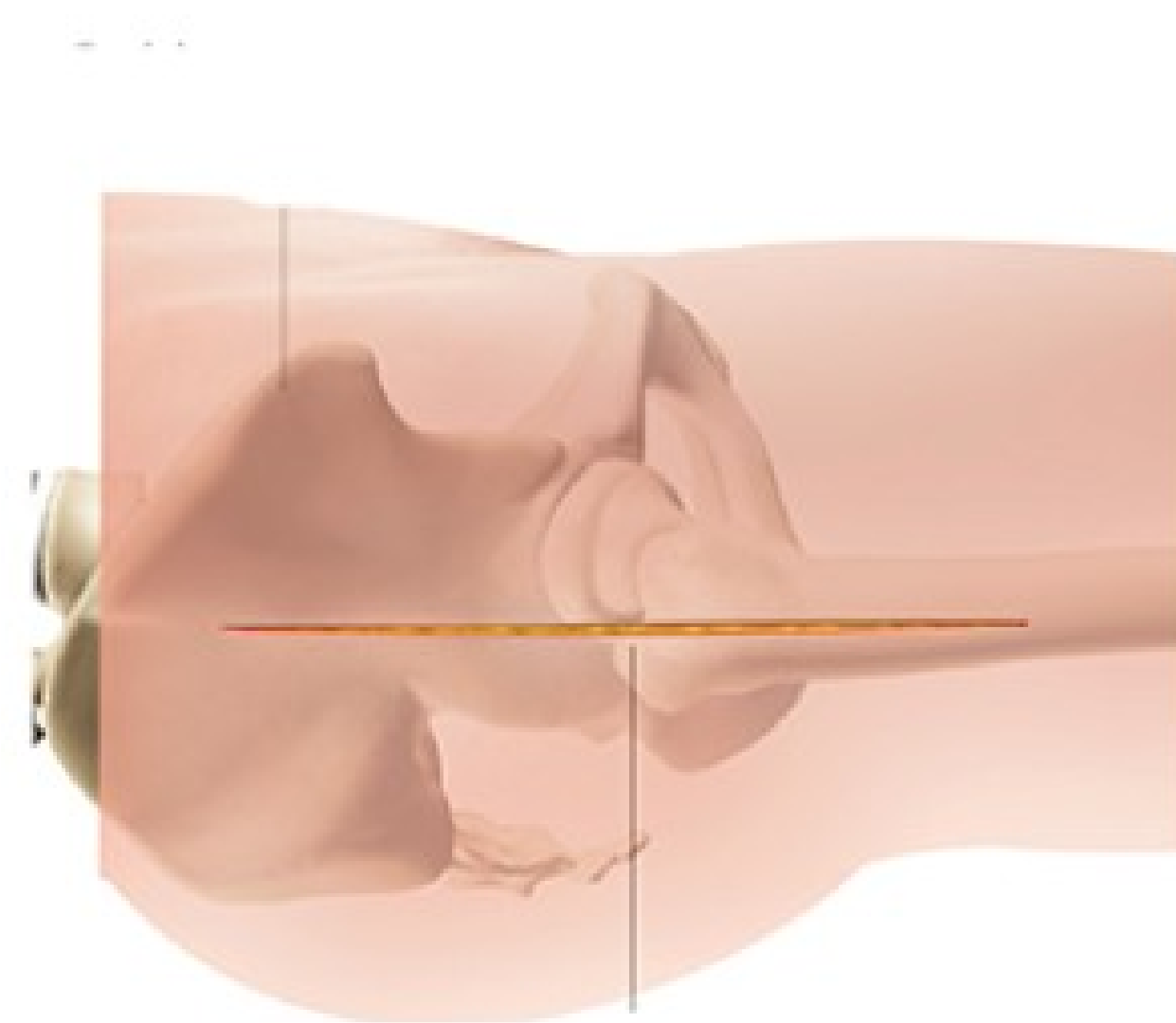


GLI ACCESSI CHIRURGICI

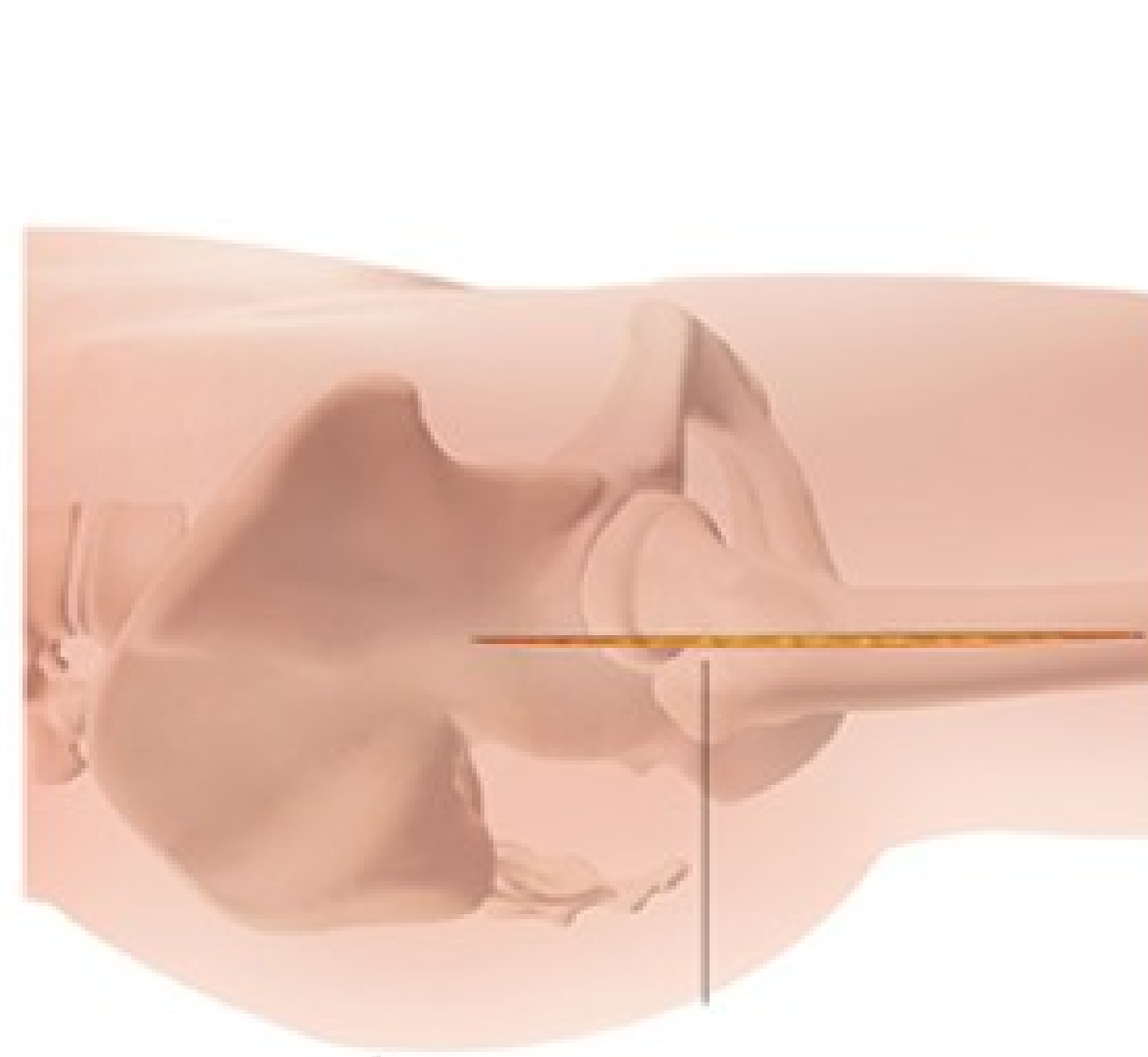
Anterior



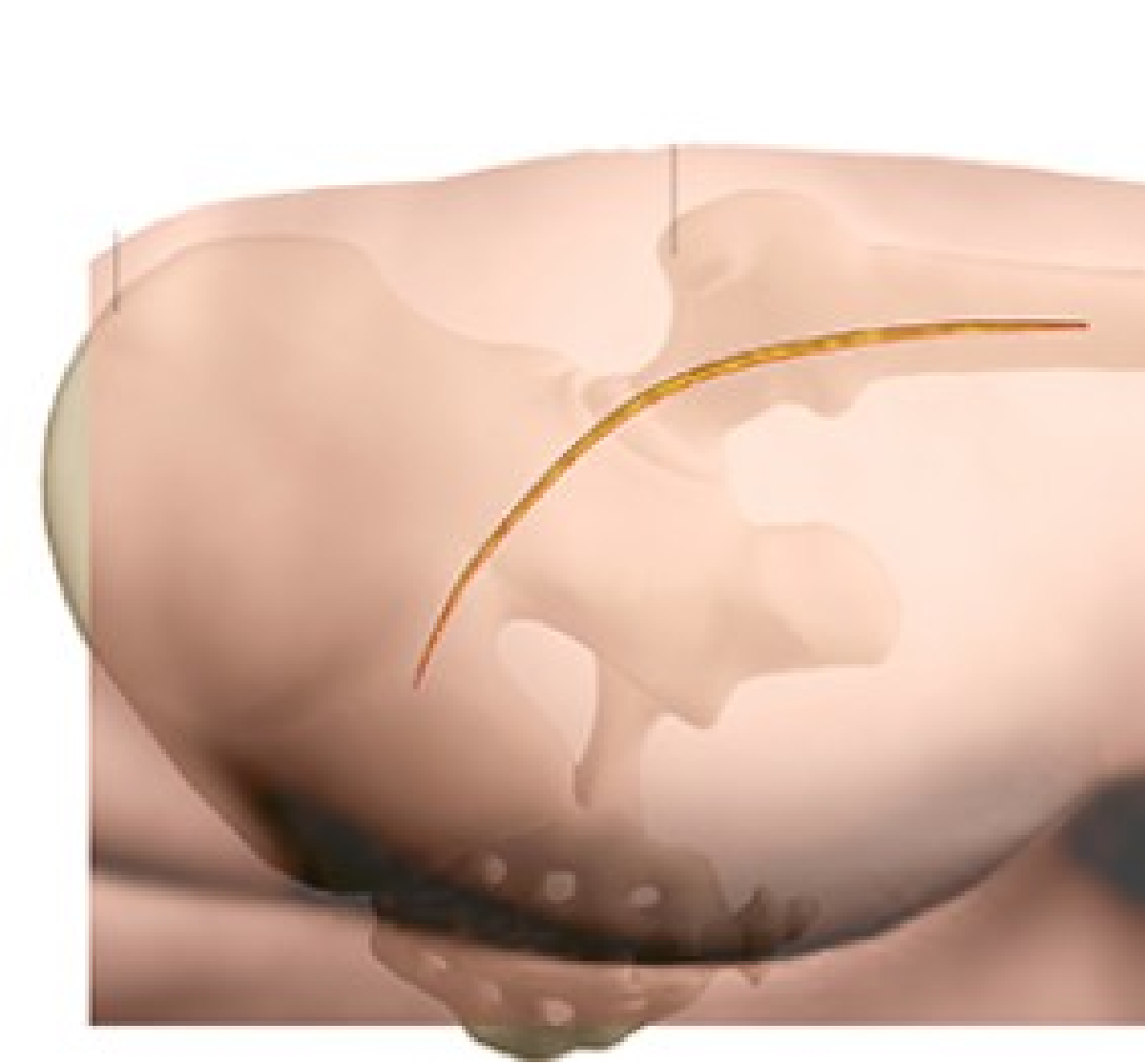
Anterolateral



Direct Lateral



Posterior

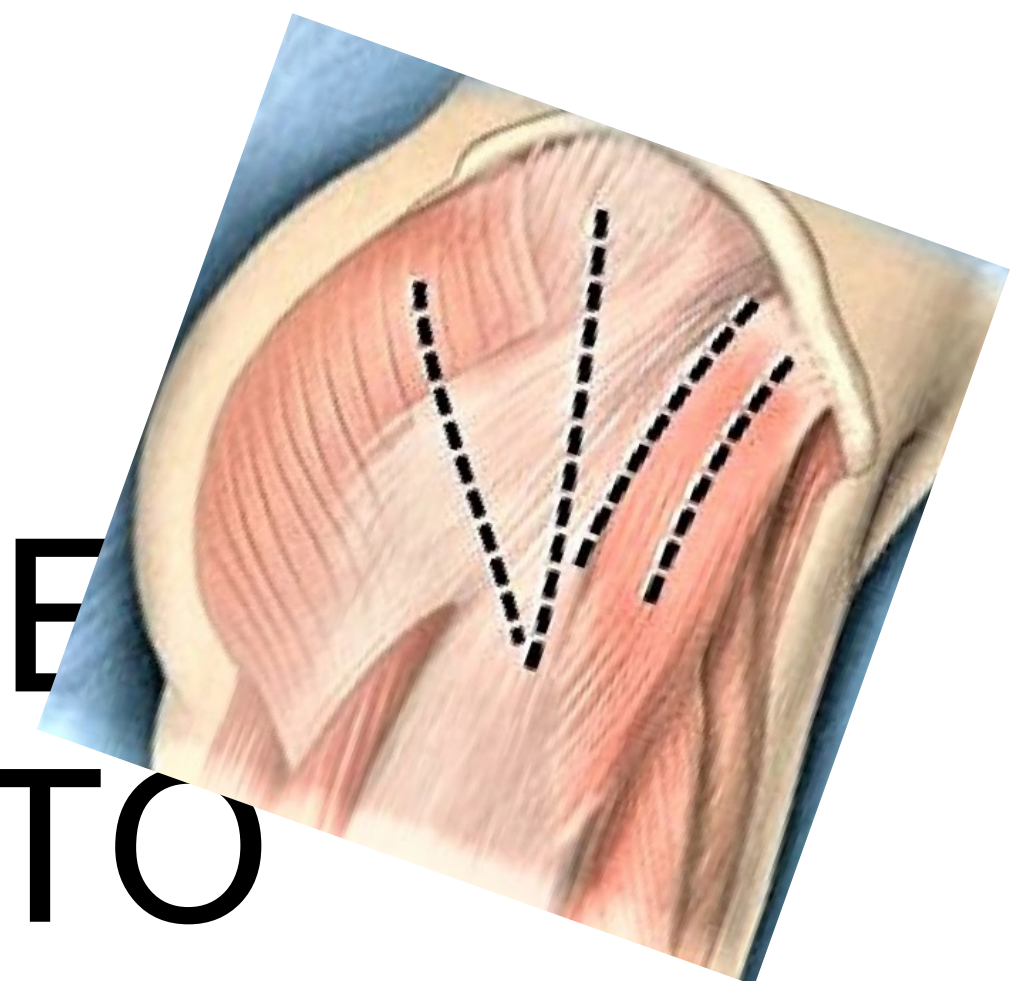


Currently, multiple mini-incision approaches have been described to include anterior, anterolateral, direct lateral, posterior, posterolateral, and a direct two-incision approach.



POSTEROLATERALE:

MINOR DURATA INTERVENTO
MAGGIOR RISCHIO LUSSAZIONE
MAGGIOR RISCHIO REINTERVENTO



LATERALE DIRETTA:

MAGGIOR DURATA INTERVENTO
MINOR RISCHIO LUSSAZIONE

ANTERIORE:

MAGGIOR DURATA INTERVENTO
MINOR TEMPO DI OSPEDALIZZAZIONE
RECUPERO PIU' RAPIDO

POSTERIOR VERSUS ANTERIOR APPROACH TO TOTAL
HIP ARTHROPLASTY: A SYSTEMATIC REVIEW AND META-
ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

LORENZO FAGOTTI^{1,2}, GUILHERME GUADAGNINI FALOTICO¹, DANIEL AUGUSTO MARANHÃO^{3,4}, OLUFFEMI R. AYENI¹,
BENNO EJNISMAN¹, MOISES COHEN¹, DIEGO COSTA ASTUR¹

¹ Universidade Federal de São Paulo, Department of Orthopedics and Traumatology, Sports Traumatology Center (CETE), São Paulo, SP, Brazil.
² Hospital Sirio-Libanês, Brasília, DF, Brazil.
³ University of São Paulo, Ribeirão Preto Medical School, Ribeirão Preto, SP, Brazil.
⁴ Division of Orthopedic Surgery, McMaster University, Hamilton, Canada.

A comparison of different
surgical approaches to
hemiarthroplasty for the femoral
neck fractures: A meta-analysis

Liang Shuai^{1,2}, Wu Huiwen^{1,2}, Deng Shihao^{1,2},
Wang Fangyuan^{1,2}, Jing Juehua^{1,2,3*} and Li Jun^{1,2,4*}

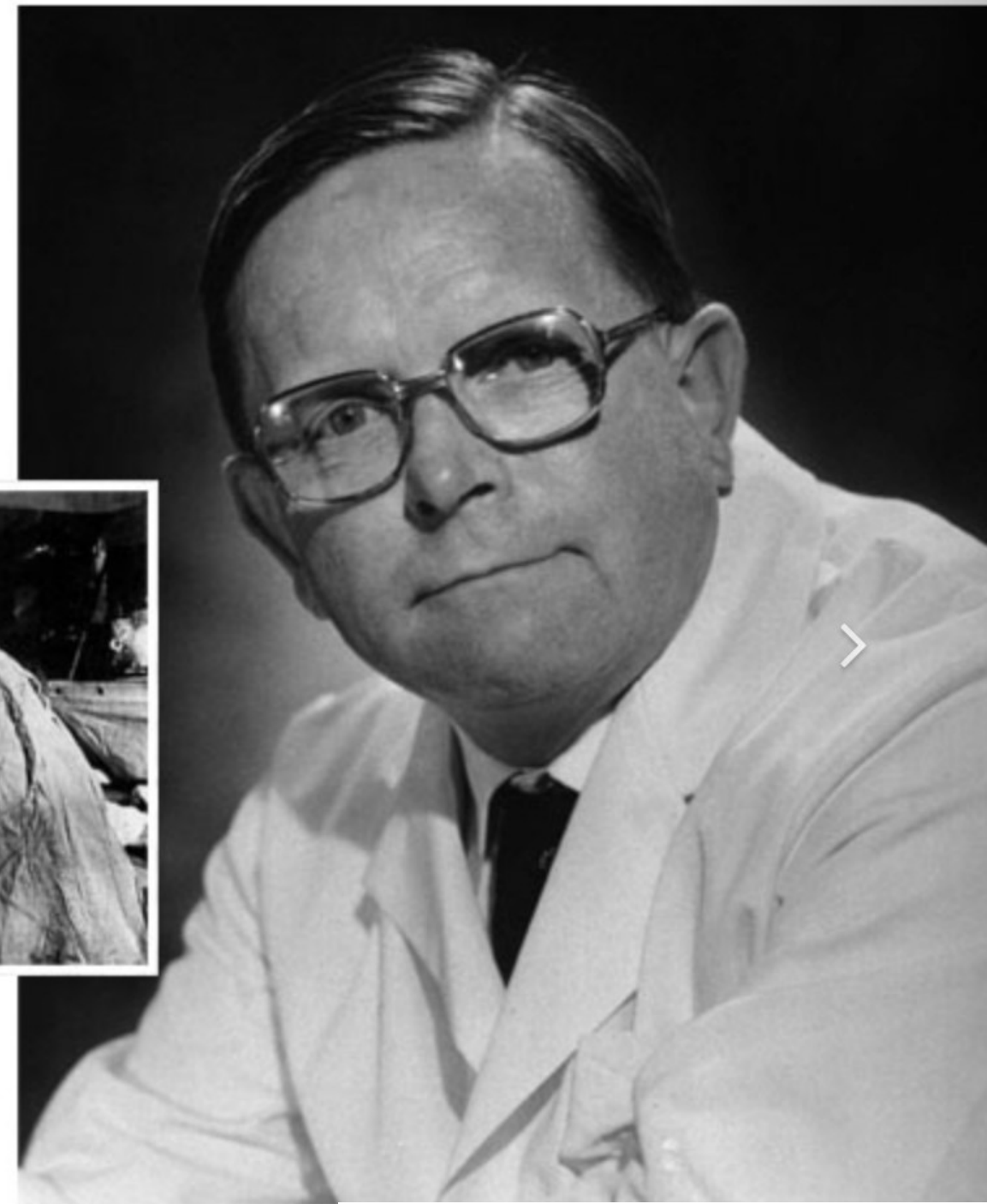
¹Department of Orthopedics, The Second Hospital of Anhui Medical University, Hefei, China.
²Institute of Orthopedics, Research Center for Translational Medicine, The Second Hospital of Anhui
Medical University, Hefei, China

Evoluzione degli impianti

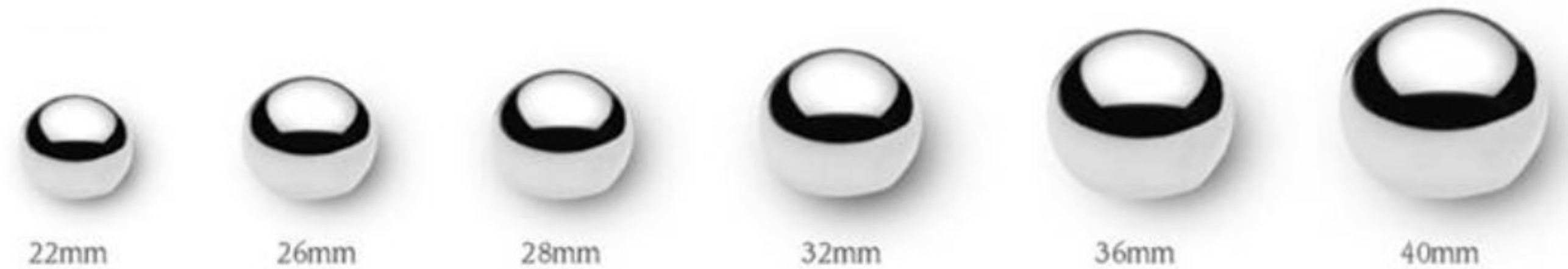
Charnley
PROSTHESIS
for low-friction Arthroplasty of the Hip-joint.

SOLE AUTHORISED MANUFACTURER
(early advert)

Sir John Charnley

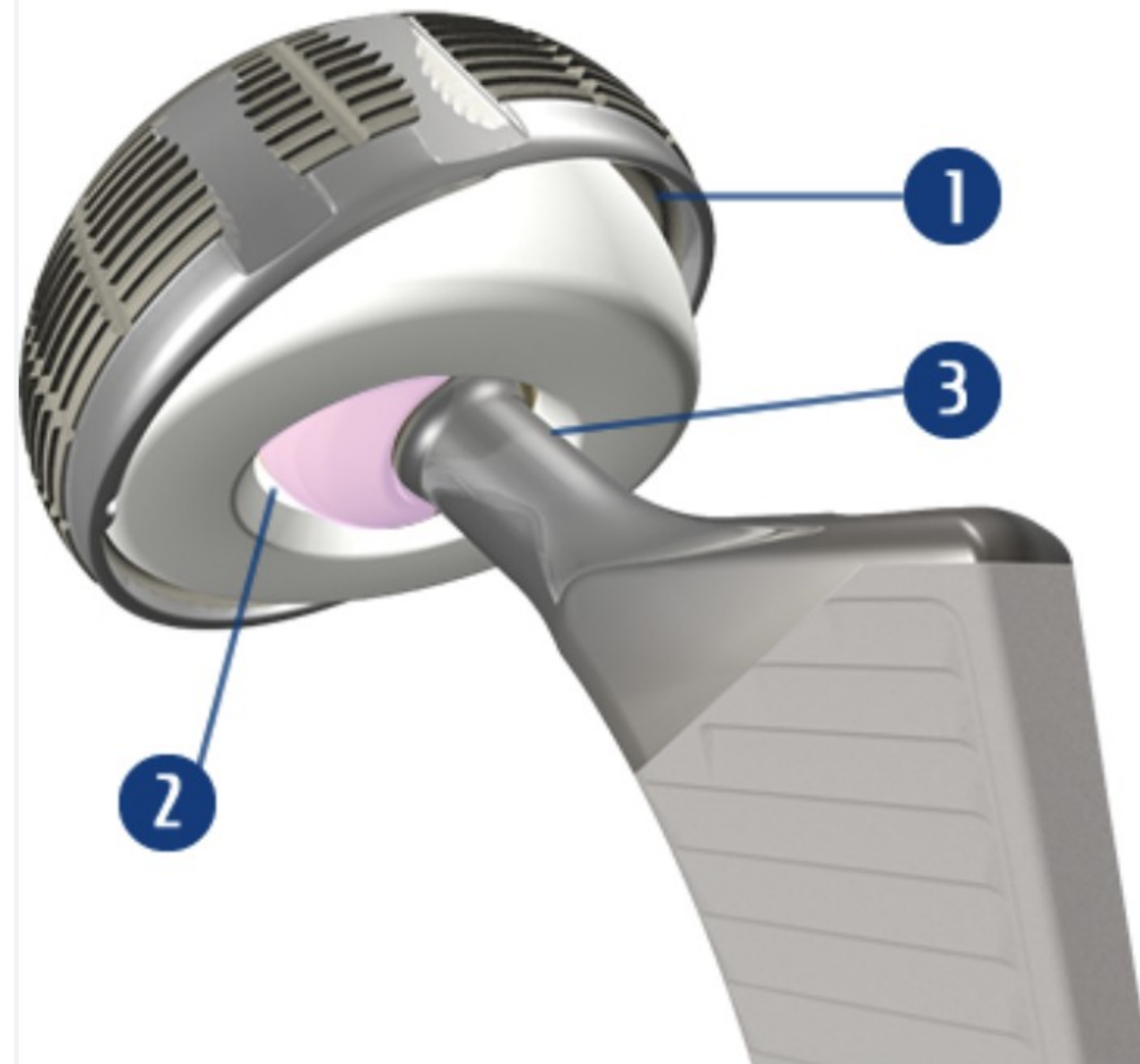


FEMORAL HEAD SIZES



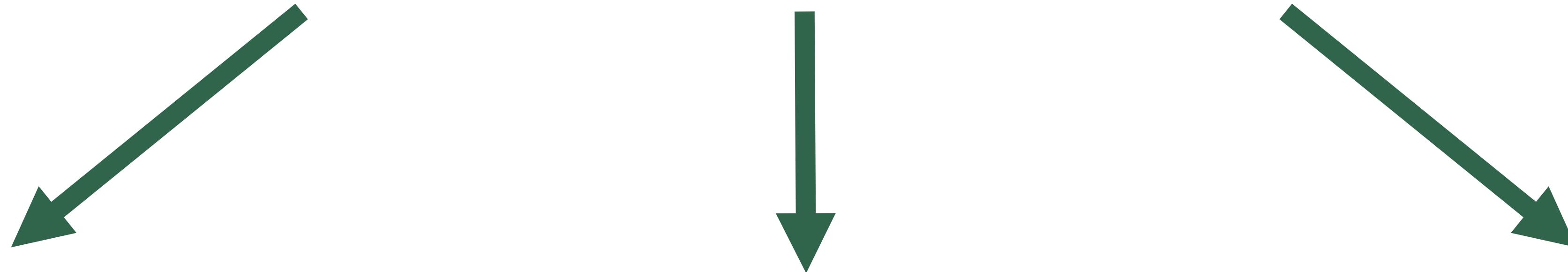
Evoluzione degli impianti

- 1 Articulation Liner/Shell
 - 2 Articulation Head/Liner
 - 3 Articulation Neck/Liner
- } Dual Mobility
- } Third Articulation



IN CONCLUSIONE..

SCELTA DELL'IMPIANTO



NUOVI IMPIANTI

+

**NUOVE
TECNOLOGIE**

+

NUOVE TECNICHE



**MIGLIORE OUTCOME E
RIDUZIONE DEL TRAUMA CHIRURGICO**

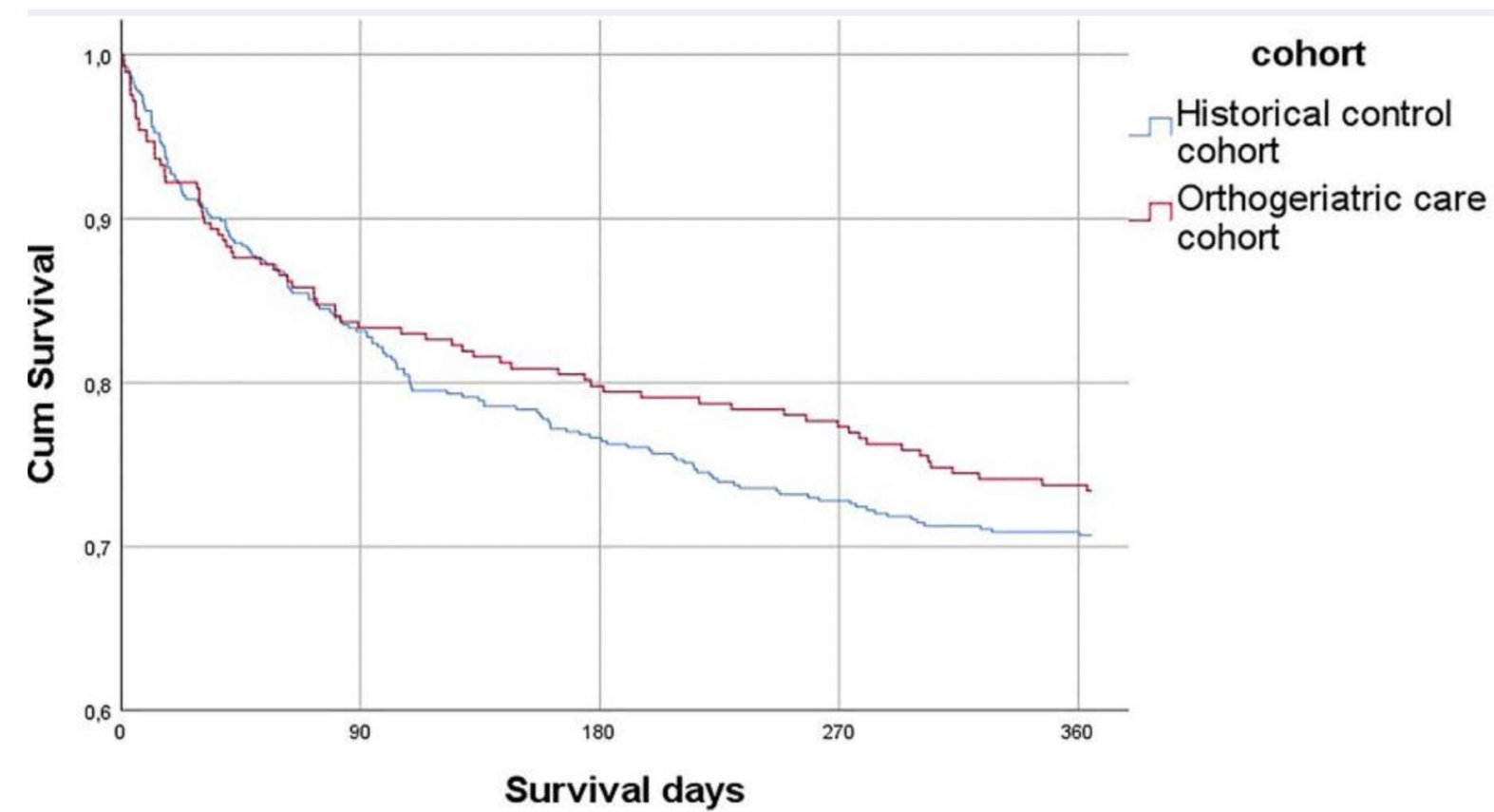
APPROCCIO ORTOGERIATRICO



UNITA' ORTOGERIATRIA MIGLIORANO GLI OUTCOME

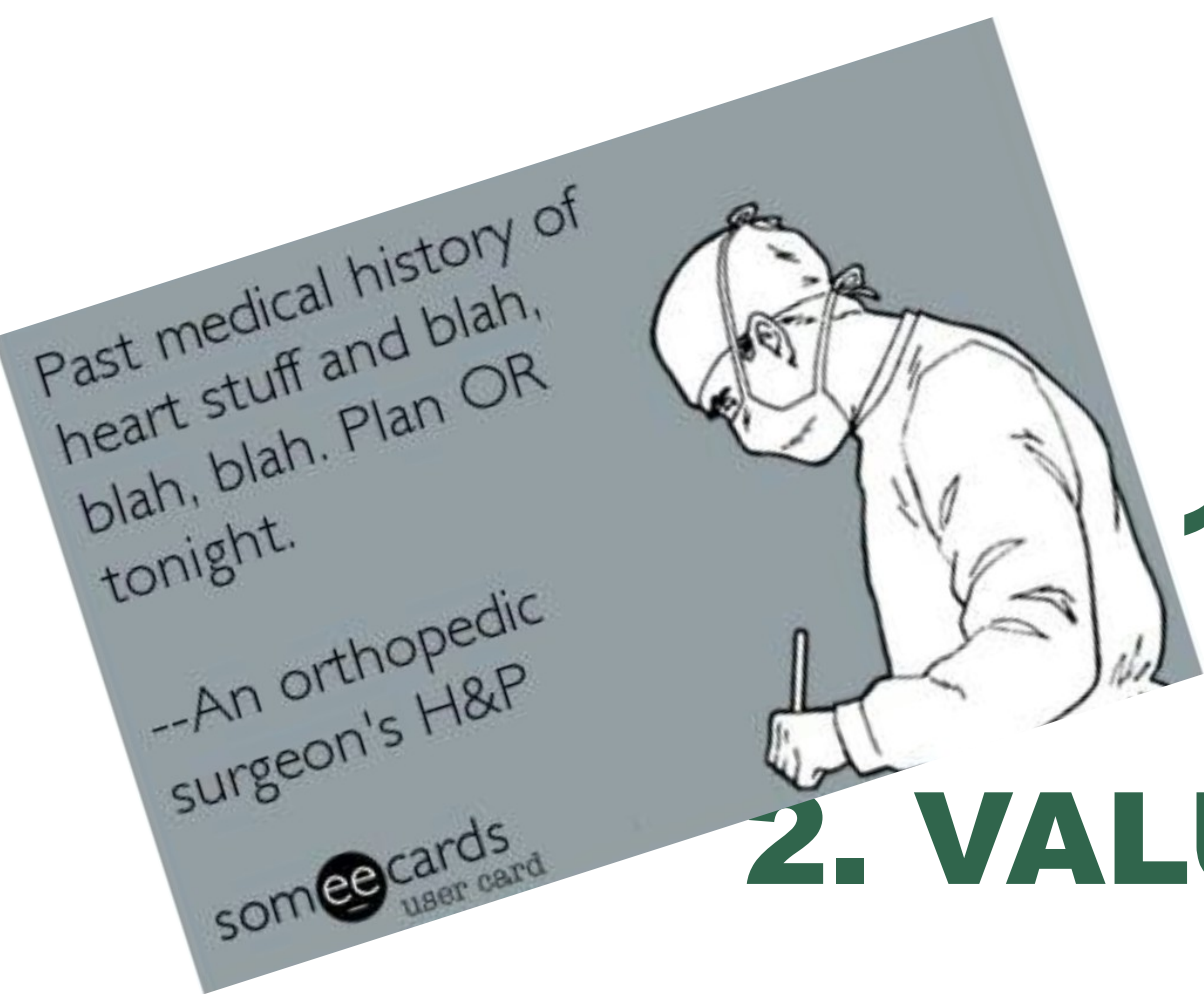
**DIMINUIZIONE DELLE
COMPLICANZE POST-
OPERATORIE, DELLA
MORTALITÀ AD UN ANNO
E DEL TEMPO DI
OSPEDALIZZAZIONE**

Schuijt HJ, Kruis A, van Herpen H, van der Vliet P, Garrahy O, Smeyers-Bril A, Vingerhoets D. Orthogeriatric Trauma Outcomes in Geriatric Hip Fracture Patients. *Geriatr Orthop Surg Rehabil.* 2020 Aug 14;11:2151459320949476. doi: 10.1177/2151459320949476. PMID: 32864179; PMCID: PMC7430081.



DURRE IL TEMPO DI DEGENZA

Lisk, R., Yeong, K., Fluck, D. et al. An orthogeriatric service can reduce prolonged hospital length of stay in hospital for older adults admitted with hip fractures: a monocentric study. *Aging Clin Exp Res* 35, 3137–3146 (2023). <https://doi.org/10.1007/s40520-023-02616-3>



1. APPROCCIO MULTIDISCIPLINARE

2. VALUTARE SINGOLARMENTE OGNI PAZIENTE



TEAM MULTIDISCIPLINARE



CHIRURGO



**PAZIE
NTI**



FISIOTERAPI



**ANESTESIST
A**



INFERMIERE

GERIATRA



GRAZIE PER

L'ADDETTAMENTO

