

Selecting the best model – Comparing existing devices to new constructs

OTA Basic Science Focus Forum – Wednesday, 10/9/13, 8:00 – 8:10

I. Fracture types:

A. OTA 31-A1.1, A1.2, A1.3

B. OTA 31-A2.1, A2.2, A2.3

II. Known clinical mechanical failure modes

A. Fixed nail-plate devices: normal vs. osteoporotic

B. Sliding compression hip screws: normal vs. osteoporotic

C. Short intramedullary fixation devices: normal vs. osteoporotic

D. Long intramedullary fixation devices: normal vs. osteoporotic

III. Mechanical models

A. Cadaver bones: normal vs. osteoporotic

B. Synthetic bones

C. End conditions

1. Partial femur models

2. Full femur models

D. Loading conditions