Orthopaedics and COVID-19: The surgery, the surgeon and the susceptible – a scoping review (O’Connor M, Nieuwoudt L, Marais LC)

1. Of patients who require emergent surgery in the COVID environment, it is suggested that:
   a. All patients should be tested prior to surgery
   b. Only patients undergoing elective procedures should be tested
   c. Symptomatic patients and patients from high prevalence areas and high risk contacts should be tested
   d. Patients should be tested if they are symptomatic
   e. All patients from high prevalence areas and with high risk contacts should be tested

2. Which group of personal protective equipment listed below reflects best the requirements for an orthopaedic procedure on a COVID-positive patient?
   a. Double glove, surgical hood, shoe covers, AAMI 3 gown
   b. Double glove, N95 respirator, visor, AAMI 2 gown
   c. Double glove, surgical mask, visor, AAMI 4 gown
   d. Double glove, N95 respirator, visor, AAMI 4 gown
   e. Double glove, surgical mask, glasses, AAMI 2 gown

3. Which of the following correctly describes a recommendation to conserve respirators?
   a. Extended use of the mask describes continuous wear while attending to different patients for 8–12 hours
   b. Extended use of the mask describes repeatedly donning and doffing the mask between patients for 8–12 hours
   c. Extended use of the mask describes continuous wear while attending to different patients for 4–6 hours
   d. Re-use refers to continuous use of the mask while attending to different patients for 8–12 hours
   e. Re-use refers to continuous use of the mask while attending to different patients for 4–6 hours

DEFCON 5: The CHBAH orthopaedic department’s COVID-19 proactive action plan (Hirschmann A, Pillay T, Fang KW, Ramokgopa MT, Frey C)

4. Chris Hani Baragwanath Academic Hospital is:
   a. The smallest hospital in the world
   b. The largest hospital in the world
   c. The largest hospital in the Eastern Cape
   d. The largest hospital in Africa
   e. The third-largest hospital in South Africa

5. In terms of the CHBAH orthopaedic staff COVID-19 risk stratification score:
   a. An age of >65 years is a criterion for 1 point
   b. A score of 3 or more was considered as high risk
   c. Lung disease is not a recognised risk factor
   d. Only type 2 diabetes mellitus is considered as a risk factor
   e. A score of 4 or more was considered as high risk


6. Paediatric femoral diaphyseal fractures can be treated by multiple modalities, but the age group that seems to create the most controversy is:
   a. 1–3 years
   b. 3–6 years
   c. 6–13 years
   d. 13–16 years
   e. 16 years and older

7. The lateral entry nail is an excellent treatment option for children with femur fractures. What would be a correct absolute or relative contraindication for lateral entry nails for the treatment of femoral fractures in this population group?
   a. 8–16 years of age
   b. Diaphyseal femoral fractures
   c. Length-unstable fractures of the diaphysis
   d. Metaphyseal junction fractures with intra-articular or transphyseal extension
   e. Transverse diaphyseal fractures in a child older than 8 years

8. Which of the following short-term outcomes of the treatment of paediatric length-unstable diaphyseal femur fractures with sub-muscular bridge plating is incorrect?
   a. Acceptable union rate
   b. Comparable blood loss when compared to the other operative treatment modalities
   c. Early mobilisation due to stable fixation
   d. Rotation abnormalities are not a problem due to the surgical technique
   e. Acceptable mechanical axis alignment on the frontal plane

Outcomes of primary fusion in high-energy Lisfranc injuries at a tertiary state hospital (Panchoo P, Wegerinck JI, Boskovic V, Laubscher M, Maqungo S, McCollum G, Dey R)

9. Choose the correct statement. The Lisfranc ligament:
   a. Runs on the dorsal aspect of the foot from the lateral aspect of the medial cuneiform to the medial aspect of the base of the second metatarsal
   b. Runs on the plantar aspect of the foot from the lateral aspect of the medial cuneiform to the medial aspect of the base of the second metatarsal
   c. Runs on the plantar aspect of the foot from the medial aspect of the middle cuneiform to the lateral aspect of the base of the first metatarsal
   d. Runs on the dorsal aspect of the foot from the medial aspect of the middle cuneiform to the lateral aspect of the base of the first metatarsal
   e. Runs on the plantar aspect of the foot from the base of the first metatarsal to the base of the second metatarsal
10. What is the current accepted range of lateral Meary’s angle?

a. -4 to 4 degrees  
A
b. 2 to 10 degrees  
B
c. 16 to 20 degrees  
C
d. 4 to 8 degrees  
D
e. None of the above  
E

11. Peri-articular infiltration as part of a pre-emptive multimodal analgesic protocol has proven to provide: (choose the most correct answer)

a. A complex analgesic modality requiring specific skills and equipment  
A
b. Analgesia associated with a complex side-effect profile  
B
c. No improvement in post-operative analgesia  
C
d. Major heterogeneity surrounding infiltration techniques  
D
e. Good analgesia, is cost effective, has minimal side effects, is easy to perform  
E

12. Considering post-operative analgesia following total knee replacement:

a. The efficacy of peri-articular infiltration is dependent on infiltrates including liposomal bupivacaine, ropivacaine and ketorolac  
A
b. Peri-articular infiltration using a widely available, inexpensive infiltration mix, calculated on a volume per kilogram basis remains a valuable addition to the multimodal analgesia pathway  
B
c. Peri-articular infiltration techniques are not possible as they require specialised skills and equipment  
C
d. Should be limited to opioid-based analgesic regimens  
D
e. Total knee replacement should not be performed in resource-poor environments  
E

13. Indications for hip revision include all of the following:

a. Aseptic loosening  
A
b. Liner wear  
B
c. Infection  
C
d. Loose abductor muscle tension  
D
e. Peri-prosthetic fracture  
E

14. The main type of wear in hip arthroplasty is:

a. Adhesive  
A
b. Fatigue  
B
c. Abrasive  
C
d. Third body  
D
e. Linear  
E

15. Type 3 acetabular defect is mostly associated with use of:

a. Morcellised femoral head allograft  
A
b. Morcellised femoral head autograft  
B
c. Porous hemispheric acetabular cup  
C
d. Cup cage  
D
e. Acetabular augment  
E

Freedman-Bernstein musculoskeletal competence testing of South African intern doctors: is there a difference between health science faculties? (Coetsee KP, Gibson NW)

16. What is the validated pass mark for the Freedman–Bernstein musculoskeletal competency test?

a. 20%  
A
b. 50%  
B
c. 90%  
C
d. 70%  
D
e. 30%  
E

17. What statistical test was used to compare mean values between multiple groups in our study?

a. Paired t-test  
A
b. Pearson correlation  
B
c. ANOVA  
C
d. Fisher’s test  
D
e. Multiple linear regression  
E

18. What percentage of South African intern doctors demonstrated basic musculoskeletal competence?

a. 6%  
A
b. 20%  
B
c. 12%  
C
d. 50%  
D
e. 70%  
E

19. A 3-year-old child is brought to you with the complaint of bilateral bow-leg deformity since birth and frequent falling. Which of the following would make the diagnosis of Blount’s disease most likely?

a. MDA ≥9°  
A
b. BMI >95th percentile for age  
B
c. MDA ≥10°, EMA >20°  
C
d. The appearance of normal valgus alignment of the proximal tibia when performing the ‘cover-up’ test  
D
e. The triangular appearance of the distal femoral and proximal tibial epiphyseal ossification centres  
E

20. An 8-year-old child is brought to you with the history of unilateral bow-leg deformity since birth. She has a thrust during the stance phase of gait on her affected leg, and her knee is unstable in full extension. X-ray shows Langenskiöld stage 5 changes. Which of the following would constitute the best treatment strategy?

a. Proximal tibial metaphyseal osteotomy (combined with fibula osteotomy) and realignment to physiological valgus  
A
b. Guided growth with a lateral proximal tibial tension-band plate  
B
c. Medial elevation osteotomy combined with proximal tibial realignment and lateral proximal tibia and fibula epiphysiodesis  
C
d. Hexapod assisted gradual correction of the proximal tibial metaphyseal deformity to re-orientate the plateau without elevation  
D
e. Medial epiphysiolysis, proximal tibial realignment osteotomy and lateral proximal tibial and fibula epiphysiodesis  
E