

CPD QUESTIONNAIRE. NOVEMBER 2022 VOL 21 NO 4

Access gate-related lower limb fractures in children and adolescents: a review of injury patterns and evaluation of associated injuries (Phala MP, Rachuene PA, Socutshana B, Bila KS)

1. Which of the following statements is *correct* relative to access gate-related injuries in South Africa?

- a. Motorised gates account for the majority of the injuries A
- b. Injuries are equally observed in both motorised and manually operated gates B
- c. Gate falling onto the child is the most common mechanism of injury C
- d. A and C are correct D
- e. All of the above statements are correct E

2. Which of the following statements *correctly* describes fracture distribution in victims of access gate injuries?

- a. Femur fractures are commoner than the other lower limb fractures A
- b. Tibia fractures are commoner than the other lower limb fractures B
- c. Both the femur and the tibia are equally affected C
- d. The majority of the cases will present with multiple fractures D
- e. Physeal injuries were observed to be occurring around the knee joint in this cohort E

3. Which of the following statements *correctly* describes injury patterns in victims of access gate injuries?

- a. Compound fractures were the most commonly found fracture patterns in these patients A
- b. The majority of the patients have associated head injury B
- c. Head injuries were commonly seen in patients with open tibia fractures C
- d. Head injuries were commonly seen in patients with femur fractures D
- e. Open fractures more commonly involved the ankle joint E

An audit on the accuracy of freehand acetabular cup positioning in total hip arthroplasty with the direct lateral approach at a tertiary institution over seven years (Erasmus RD, Fourie PJ, Janse van Rensburg C, Jacobs HW)

4. What was the initial safe zone described by Lewinnek for acetabular cup placement?

- a. $20^\circ \pm 10^\circ$ anteversion and $40^\circ \pm 10^\circ$ inclination A
- b. $15^\circ \pm 10^\circ$ anteversion and $30^\circ \pm 10^\circ$ inclination B
- c. $15^\circ \pm 5^\circ$ anteversion and $40^\circ \pm 10^\circ$ inclination C
- d. $15^\circ \pm 10^\circ$ anteversion and $40^\circ \pm 10^\circ$ inclination D
- e. $20^\circ \pm 10^\circ$ anteversion and $30^\circ \pm 10^\circ$ inclination E

5. What was our freehand cup placement accuracy?

- a. 37% A
- b. 47% B
- c. 57% C
- d. 67% D
- e. 77% E

6. What was our dislocation rate?

- a. 5% A
- b. 4% B

- c. 3% C
- d. 2% D
- e. 1% E

A retrospective comparative study of complications after total knee replacement in rheumatoid arthritis and osteoarthritis patients (Nansook A, Ryan P)

7. What is the overall complication rate in this article?

- a. 15% A
- b. 7% B
- c. 3% C
- d. 40% D
- e. 26% E

8. Which of the following statements is true?

- a. The study showed a higher complication rate in the rheumatoid arthritis subgroup A
- b. There was a statistical significance in complication rates between the groups B
- c. HIV did not increase the overall risk of complications C
- d. Most patients were male (87%) D
- e. No complications occurred in the osteoarthritis subgroup E

9. A local study by Hodkinson et al. showed that:

- a. Despite appropriate treatment, a large proportion of RA patients still develop significant functional impairment A
- b. HIV is the leading cause of postoperative complications B
- c. RA patients have low functional impairment C
- d. Only a small portion of patients develop complications post TKA D
- e. DVT is the most common complication E

Retrospective audit of serum vitamin D levels in patients who underwent Latarjet procedure for anterior shoulder instability (Rachuene AP, Dey R, De Villiers S, Berry K, Mulder M, Du Plessis J-P, Roche S)

10. With reference to vitamin D deficiency in young patients, which of the following statements is *correct*?

- a. Vitamin D deficiency in the young South African population is reported to be uncommon in the literature A
- b. Vitamin D deficiency only affects elderly patients and children with rickets B
- c. Vitamin D deficiency is reported to affect over 15% of South African children C
- d. People with dark skin pigment have increased vitamin D synthesis, and hypovitaminosis D is uncommon in this population group D
- e. All of the above statements are correct E

11. Which of the following statements is *correct* regarding Latarjet procedure?

- a. Latarjet procedure is a successful procedure with minimal to no risk of complications A
- b. Coracoid bone block has blood supply from the conjoint tendon, therefore non-union and resorption are not a concern B
- c. CT scan-based studies report over 90% bone block resorption rate following this procedure, with minimal clinical impact C
- d. CT scan-based studies report under 10% bone block resorption rate following this procedure, with great clinical impact D
- e. Bone block will invariably cause recurrent instability E

12. Regarding hypovitaminosis D in patients undergoing Latarjet procedure for anterior shoulder instability, which of the following statements is correct?

- | | |
|---|---|
| a. In the study, hypovitaminosis D was directly correlated to poor bone block union rate | A |
| b. Hypovitaminosis D is common in young patients undergoing Latarjet procedure and supplementation should be considered in these patients | B |
| c. Hypovitaminosis D was shown to be associated with increased risk of bone block fracture | C |
| d. Vitamin D has no impact on bone healing; therefore, it should not be considered in patients undergoing Latarjet procedure | D |
| e. The study found hypovitaminosis D to affect only female patients | E |

The burden of road traffic accident-related trauma to orthopaedic healthcare and resource utilisation at a South African tertiary hospital: a cost analysis study (Thikhathali ND, Ngcelwane MV)

13. Which statement is true with regard to road traffic accidents (RTAs) in South Africa?

- | | |
|--|---|
| a. The most common cause of trauma in South Africa is road traffic accident followed by interpersonal violence | A |
| b. RTAs cause less trauma in South Africa than interpersonal violence | B |
| c. The majority of RTA trauma patients have polytrauma | C |
| d. B and C only | D |
| e. A, B and C | E |

14. Regarding the burden of trauma for our institution:

- | | |
|---|---|
| a. The management of trauma patients does not influence the management of the non-trauma elective patients | A |
| b. The biggest cost driver in this study was hospital stay | B |
| c. Management of acute fractures with external fixators does not have a significant impact on the overall costs of implants | C |
| d. External fixators were the most utilised implants accounting for 40% of the implants utilised in this study | D |
| e. The average number of days spent in hospital for these patients was 18 days per patient admitted | E |

15. Choose the correct statement from the options below:

- | | |
|--|---|
| a. The causes of RTA-related injuries are preventable, as putting preventative measures in place as well as applying punitive measures for the offenders will help minimise the RTAs | A |
| b. The number of mortalities from RTAs is only reflected by the number of in-hospital mortalities | B |
| c. In comparison to previous studies done in Africa, the commonest mode of RTA-related injuries for this study was pedestrian-vehicle accident | C |
| d. A and C only | D |
| e. A, B and C | E |

The mechanical testing of a novel interlocking forearm nail (Pretorius HS, Burger MC, Ferreira N)

16. The nail produced in the article is made from titanium because of its low modulus of elasticity close to that of the radius. What is the modulus of elasticity of the radius?

- | | |
|---------------|---|
| a. 90–100 GPa | A |
| b. 67–87 GPa | B |
| c. 10–17 GPa | C |
| d. 10–28 GPa | D |
| e. 34–53 GPa | E |

17. Which standardised tests are performed on the radius to evaluate the nail for strength and durability?

- | | |
|--|---|
| a. Four-point torsion test, static rotational test and bending test | A |
| b. Four-point rotational test, static rotational test and bending test | B |
| c. Four-point bending test, static rotational test and rotational fatigue test | C |
| d. Four-point bending test, static rotational test and four-point fatigue test | D |
| e. Four-point rotational test, static rotational test and bending fatigue test | E |

18. The use of a semi-logarithmic graph is used in testing for what reason?

- | | |
|--|---|
| a. It is the only way to predict outcome in testing with these variables | A |
| b. It is the best way to represent graphs with vastly different X and Y values | B |
| c. It is the best way to represent X and Y values with equivalent values | C |
| d. It is the only way to represent X and Y values with equivalent values | D |
| e. It is the best way to represent X and Y values with extremely large values | E |

Truth or DAIR? A review of debridement, antibiotics and implant retention (Blair NR, Van der Merwe JF, Matshidza S)

19. A 72-year-old female underwent left total knee arthroplasty (TKA) 9 months ago. She now has new onset pain, with decreased range of motion. PJI is suspected. Based on the on the Musculoskeletal Infection Society (MSIS), which of the following, if present, can be used in isolation for the diagnosis of an infected TKA?

- | | |
|--|---|
| a. Elevated synovial WBC count and PMNs | A |
| b. CRP of 55 mg/l | B |
| c. Sinus tract communicating with the prosthesis | C |
| d. Purulence in the knee joint | D |
| e. ESR of 60 mm/h | E |

20. In reference to debridement, antibiotics and implant retention (DAIR), which of the following statements is incorrect?

- | | |
|--|---|
| a. Irrigation with normal saline with or without the addition of an antiseptic solution is strongly recommended | A |
| b. DAIR can be performed in patients with a previous mega-prosthesis | B |
| c. The causative organism does not play a role in DAIR success rates | C |
| d. DAIR performed for PJI after fracture arthroplasty shows an increased risk for failure compared to PJI after primary joint arthroplasty | D |
| e. Exchange of mobile components is an independent factor related to DAIR success | E |

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