ECVS SA Case Based Mock Exam_2024

Exam date: 10/15/2024 8:00:00 AM

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10930**
Author	**Radke**
Key Feature:	**Master question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**1**

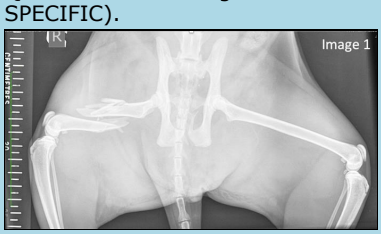
1. Question

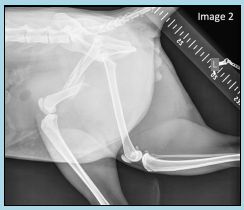
Case 6

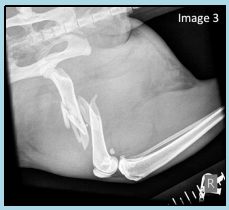
A 2-year-old, male neutered Domestic Shorthair cat weighing 4.5kg is referred to you after being involved in a road traffic accident 24 hours previously. The cat has had initial stabilisation by the first opinion vets. On physical examination, the patient is alert and responsive, non-ambulatory and paraparetic with voluntary movement of both hindlimbs and presence of deep pain. The cat is painful on palpation of the pelvis and the right femur. As part of the subsequent investigation, orthogonal radiographs of pelvis and femora are obtained (Images 1-3).

- IMAGE 1: Radiograph, pelvis and femora, frog leg view
- IMAGE 2: Radiograph, pelvis and femora, lateral
- IMAGE 3: Radiograph, right femur, medio-lateral

Q1: Review the images and state the THREE most significant radiographic diagnoses concerning the SKELETON (BE SPECIFIC).







Correction notes
The questions asks you to be SPECIFIC and to give the THREE MAIN diagnoses relating to the SKELETON.

Remember we will only take the first THREE diagnoses you give in this question. If you give four answers, we will not mark or give credit for the fourth answer you give. Make sure that you have given the correct number of answers to questions that specify a number.

This question also indicates that we will only accept questions relating to the SKELETON. We will not accept answers relating to the soft tissues.

The question asks you to be SPECIFIC. Ensure you include information about the lateralisation of the changes you have identified to ensure you get credit for your answer. Not specifying lateralisation of fractures, subluxations etc. in cases like this represents a serious clinical failing.

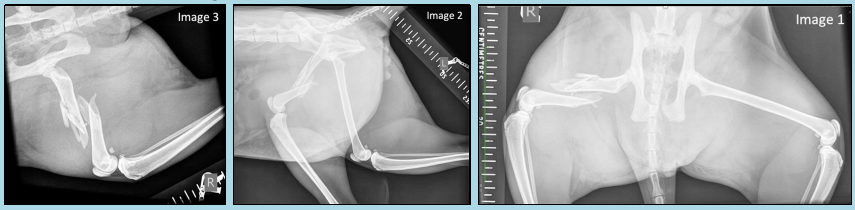
Maximum total amount of characters allowed for the answer
100

1. **Bilateral sacroiliac luxations (fracture/luxations also OK), (allow also sub-luxation of the right)**
2. **Pubic OR ischial fractures OR pelvic floor fractures**
3. **Right femoral fracture**
4. **(2 pts for all 3, 1 pt for 2)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10931**
Author	**Radke**
Key Feature:	**1. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**2**

2. Question
You diagnose bilateral sacroiliac luxations with cranial displacement, minimally displaced fractures of the pelvic floor and a right femoral fracture.

Q2: Describe the right femoral fracture.



Correction notes
In the Case base questions, you cannot go back and alter a previous answer but we give you the relevant information from previous questions as you work through the text (as seen in the first sentence of this question) to enable you to work through the case even if you have missed clinical features in previous questions.

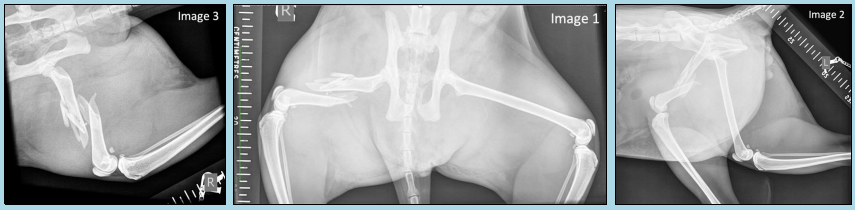
The question asks you to DESCRIBE the fracture. A partial description is not sufficient.

Maximum total amount of characters allowed for the answer
100

1. **diaphyseal OR mid-diaphysis**
2. **comminuted**
3. **caudally displaced OR caudally displaced distal femur (Would accept *cranially displaced proximal femur* although it is not custom to describe the proximal fragment. Just *cranially displaced* is incorrect)**
4. **overriding OR caudo-proximally displaced**
5. **(2 pts for all). *unstable*, *complete* and *closed* are also correct, but not required for achieving pts.**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10932**
Author	**Radke**
Key Feature:	**2. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**3**

3. Question
Q3: In addition to pain, give the TWO MAIN INDICATIONS to consider surgical stabilisation for this cat's sacroiliac luxations.



Correction notes
Make sure you read the question carefully. Stating PAIN as part of your answer will give you no credit as it is specifically excluded from your answer in the question text.

We will only assess the first TWO factors you list (any additional ones you give will be ignored).

After you have written your answer and before you move on, re-read the question and make sure:
- You fully understand it
- You have checked what the question is specifically asking for
- Your answer matches the question being asked
Mis-reading the question and answering the wrong question is a common problem for people sitting the exam.

Maximum total amount of characters allowed for the answer
120

1. **Any TWO of the following three:**
2. **Instability of ilial wings OR displacement of over 50% of SI joint**
3. **Non-ambulatory OR neurological deficits**
4. **(Mild) Narrowing of pelvic canal**
5. **(2 pts for all)**

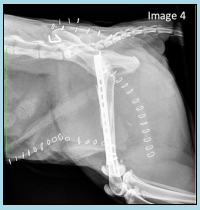
Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10933**
Author	**Radke**
Key Feature:	**3. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**4**

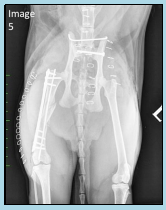
4. Question
The cat undergoes surgical stabilisation.

Radiographs are obtained after surgery (Images 4 and 5). In the same surgery, a skin laceration in the area of the caudo-ventral abdomen is closed using metal staples.

- IMAGE 4: Radiograph, pelvis and femora, lateral, immediate postoperative
- IMAGE 5: Radiograph, pelvis and femora, ventro-dorsal, immediate postoperative

Q4: For the surgical approach to the sacrum, why must the muscular elevation be confined to the sacral wing?





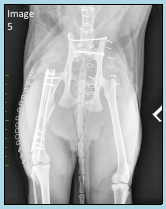
Correction notes

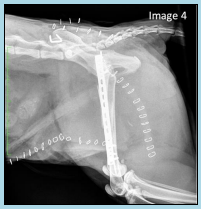
Maximum total amount of characters allowed for the answer
100

1. ***To avoid damage to (dorsal) nerve roots* emerging through the dorsal foramina of the sacrum.**
2. **(2 pts for all)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10934**
Author	**Radke**
Key Feature:	**4. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**5**

5. Question
Q5: Describe the orthopaedic procedures performed, including the type of implants used (sizes of implants are not required).





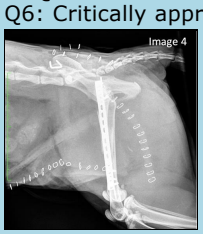
Correction notes
We considered recognizing the implants used and interpretating the radiographs to establish how the stabilisations had been achieved were important aspects of demonstrating knowledge of clinical decision making in this case.

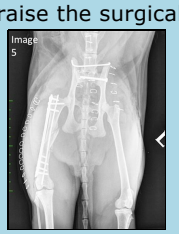
Maximum total amount of characters allowed for the answer
250

1. **(1) *Stabilisation of the bilateral sacroiliac luxation* with a (2) *left/unilateral* (ilio-sacral) (lag) *screw*, and (3) a *trans-ilial pin/K-wire***
2. **(4) *Stabilisation of the right femoral fracture* with a (5) *DC plate/DCP* and (6) an *IM-pin* OR (5) a *plate-rod* construct using a (6) *DCP***
3. **(2 pts for 5 or 6, 1 pt for 4)**
4. **Do not accept LCP/locking plate or any other plate. Implant sizes are not required.**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10935**
Author	**Radke**
Key Feature:	**5. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**6**

6. Question
Q6: Critically appraise the surgical stabilisation of the sacro-iliac luxations, considering reduction and implants.





Correction notes
This asks you to CRITICALLY APPRAISE the stabilisation.
This requires you to demonstrate judgement following interpretation of the radiographs.
We expected candidates to be able to answer this question well.

Maximum total amount of characters allowed for the answer
250

1. ***Reduction good on the left***
2. ***Reduction not perfect/acceptable on the right* (*SI luxation bilaterally adequately reduced* => counts as 2)**
3. ***Screw is placed correctly in sacrum AND length is adequate* because >60%/*slightly long***
4. ***Trans-ilial pin/k-wire adequate* OR *questionable bone purchase on the left***
5. ***Pelvis re-aligned***
6. **(2 pts for 4, 1 pt for 3)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10936**
Author	**Radke**
Key Feature:	**6. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**7**

7. Question
Q7: State the FOUR MAIN STEPS to minimise the risk of iatrogenic sciatic nerve injury when placing the intramedullary pin in this cat?

Correction notes
This question asks for FOUR methods. Only the first four methods you list will be marked.

Maximum total amount of characters allowed for the answer
200

1. ***Normograde* placement**
2. ***Hold leg extended and adducted***
3. ***Walk K-wire/pin off the medial aspect of the greater trochanter into trochanteric fossa***
4. ***Cut short* OR before *cutting withdraw a bit-cut-advance***
5. **(2pts for any 3, 1pt for 2)**

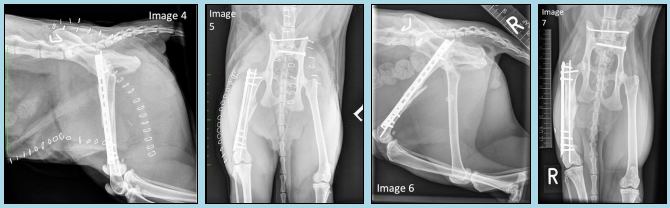
Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10937**
Author	**Radke**
Key Feature:	**7. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**8**

8. Question
Ten weeks after surgery the cat returns for a recheck and orthogonal radiographs are obtained (Images 6 and 7). On presentation, the cat is walking well with no lameness observed. Palpation of the right coxo-femoral joint and the right stifle joint is not painful with a good range-of-motion of both joints.

- IMAGE 4: Radiograph, pelvis and femora, lateral, IMMEDIATE POSTOPERATIVE
- IMAGE 5: Radiograph, pelvis and femora, ventro-dorsal, IMMEDIATE POSTOPERATIVE

- IMAGE 6: Radiograph, pelvis and femora, lateral, 10 WEEK POSTOPERATIVE
- IMAGE 7: Radiograph, pelvis and femora, ventro-dorsal, 10 WEEK POSTOPERATIVE

Q8: Comparing the 10 week postoperative to the immediate postoperative films, CRITICALLY APPRAISE the radiographs, EXCLUDING THE PELVIS. (Commenting on the radiographic technique and commenting on the metal staple not required)



Correction notes
This question directs you to IGNORE the pelvic injuries and to critically appraise the femoral fracture only. A common mistake is to fail to read the question properly and give an answer to the wrong thing (in this case commenting on the pelvic stabilisation).

Make sure you re-read the question before moving onto the next question to ensure you have answered the question that has actually been asked and to ensure that you have understood the question properly.

1. **Alignment unchanged**
2. **Implants in place/unchanged**
3. **Fracture healed/starting to remodel/caudal fragment not quite incorporated on dorsal aspect/bridging bone callus/signs of clinical union**
4. **Muscle atrophy right thigh**
5. **On v/d view right patella luxated**
6. **Mild varus deformity of femur**
7. **(2 pts for 5, 1 pt for 3 or 4)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10938**
Author	**Radke**
Key Feature:	**8. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**9**

9. Question
Repeat orthopaedic examination under sedation reveals that the right patella luxates medially when the tibia is internally rotated without exerting direct digital pressure.

Q9: In addition to pre-existing laxity of the right patella, what factor related to the recent surgery has likely contributed to the right medial patellar luxation (excluding muscle atrophy and soft tissue laxity)?

Correction notes

Maximum total amount of characters allowed for the answer
100

1. ***Rotational deformity* OR * Torsional deformity* OR *malunion* OR *malalignment* OR**
2. **OR resulting in *distal femoral varus* (and shortening)**
3. **(2 pts for all)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**10939**
Author	**Radke**
Key Feature:	**9. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**10**

10. Question
Q10: At this time you recommend conservative management for the patellar luxation. JUSTIFY this decision.

--- End of Case ---

Correction notes

Maximum total amount of characters allowed for the answer
200

1. **Because the cat is *walking well* OR *with no lameness* observed. Palpation of the *right hip and stifle joints is not painful with a good range-of-motion* of both joints.**
2. **OR The *clinical presentation and the examination do not suggest a clinically relevant problem* to be present at this point**
3. **OR The *patellar luxation is not clinically relevant at this point***
4. **(2 pts for all)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12127**
Author	**Yool**
Key Feature:	**Master question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**11**

11. Question

Case 1

A 3-year-old, female neutered, Bichon Frisé, weighing 6kg, is referred 24 hours following a dog attack for worsening subcutaneous cervical emphysema.

On presentation, the dog is stable, is breathing normally and has a normal temperature. It has multiple small puncture wounds in the central, ventral neck skin. There is palpable, marked subcutaneous emphysema in the neck.

Question 1: Reviewing the clinical history and clinical findings, list the TWO MOST LIKELY causes of subcutaneous emphysema in this case excluding the skin punctures.

Correction notes
No pts if state lung or thoracic wall

Maximum total amount of characters allowed for the answer
130

1. **Pharyngeal penetration**
2. **oesophageal penetration**
3. **Tracheal penetration**
4. **laryngeal penetration**
5. **(2 pts for any 2)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12128**
Author	**Yool**
Key Feature:	**1. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**12**

12. Question
You consider tracheal laceration or oesophageal laceration as being the most likely causes of emphysema and recommend surgical exploration of the neck to assess the trachea and oesophagus.

Question 2: DESCRIBE the KEY STEPS in the surgical approach for exploration of the neck in this case from skin incision onwards including landmarks for the skin incision (but excluding closure). BE SPECIFIC.

Correction notes

Maximum total amount of characters allowed for the answer
200

1. ***ventral***
2. ***midline***
3. ***larynx to manubrium* OR *entire length of the neck***
4. **(Separation of sternothyroideus muscles (not required for marks))**
5. ***Separation of sternohyoideus muscles on midline* OR *dissection between sternohyoideus bellies***
6. **(Blunt dissection onto the tracheal fascia)**
7. **Blunt *dissection of the left cervical region to expose the oesophagus* OR *similar description of exploration***
8. **(1 pt for 4, 2 pts for 5)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12139**
Author	**Yool**
Key Feature:	**2. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**13**

13. Question
You identify a longitudinal tracheal tear in the ventral aspects of the 4th and 5th tracheal ring cartilages measuring 2cm in length and 5mm in width. You debride the edges of the defect and appose them using full-thickness, simple interrupted, monofilament suture material.

Question 3: LIST the key steps for how you will check the TRACHEAL REPAIR for on-going leakage of air intra-operatively.

Correction notes

Maximum total amount of characters allowed for the answer
250

1. **Withdraw the endotracheal tube so it sits proximal to the defect**
2. **Use positive pressure ventilation to check for air leakage**
3. **Having flooded the surgical site with saline OR checked pressure generated OR similar**
4. **(1 pt for 2, 2 pts for all or 2 pts for equivalent description)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12140**
Author	**Yool**
Key Feature:	**3. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**14**

14. Question
You perform an intra-operative leak test that demonstrates on-going leakage through the TRACHEAL REPAIR. Despite placing additional sutures, the leakage continues.

Question 4: How will you surgically address the on-going leakage?

Correction notes

Maximum total amount of characters allowed for the answer
75

1. **Tracheal resection and anastomosis**
2. **Muscle flap**
3. **(2 pts for either)**

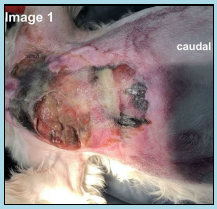
Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12141**
Author	**Yool**
Key Feature:	**4. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**15**

15. Question
You address the tracheal leakage, place a wound drain and close the surgical site. You continue the pre-operative antibiotics prescribed by the referring clinician with a 7-day course of amoxicillin clavulanic acid orally. The emphysema resolves over the next 2 days and the dog is discharged. However, 2 days later the dog re-presents with a previously un-identified bite wound with an area of abscessation and necrotic skin over the cranial sternum (see IMAGE 1). The patient remains bright, is not pyrexic and is otherwise stable.

- IMAGE 1: abscessation over the cranial sternum. The head is towards the left and the dog is positioned in dorsal recumbency.

All the necrotic tissue is debrided to bleeding, healthy margins. The wound is lavaged. Samples are collected for culture and sensitivity testing. Surface cytology is consistent with superficial wound infection. You decide to apply a dressing whilst waiting for culture and sensitivity results. You are concerned about the risk of developing resistant wound infection.

Question 5: STATE which SPECIFIC contact layer (primary layer) of the dressing you will use for the next 72 hours to manage this wound JUSTIFYING your answer?



Correction notes
No points for NPWT without silver
No points for topical antibiotics
No points for sugar
No points for dressing not containing honey, silver, PHMB or similar topical agent

Maximum total amount of characters allowed for the answer
100

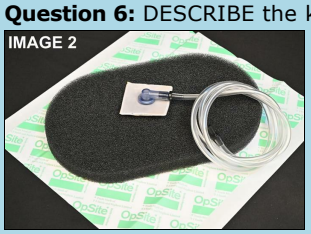
1. **HONEY ANSWERS: *medical grade honey* OR *manuka honey* OR *Prontosan/ honey gel* to *for antibacterial effect* (2 pts for both) May also state for wound debridement or similar. May also state with foam or similar dressing.**
2. **SILVER ANSWERS: *nano-crystalline silver dressing* OR *silver dressing* *for antibacterial effect* (2 pts for both) May also state with foam or similar dressing.**
3. **SILVER + NPWT/VAC *silver-impregnated foam dressing* OR *silver dressing with VAC/NPWT* *for antibacterial effect* (2 pts for both) May also state to facilitate wound coverage/ encourage granulation/**
4. **polyhexamethylene biguanide hydrochloride OR PHMB OR Prontosan dressing: *PHMB impregnated dressing* *for disinfectant effect* OR *for biofilm prevention* or similar (2 pts for both) (Do not deduct points for spelling mistakes or mixing up the letters in the abbreviation)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12142**
Author	**Yool**
Key Feature:	**5. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**16**

16. Question
By 72 hours, the discharge from the wound has reduced and surface cytology shows only occasional inflammatory cells and no bacteria. You decide to place a negative pressure wound therapy dressing using the items shown in IMAGE 2.

- IMAGE 2: negative pressure wound therapy materials

Question 6: DESCRIBE the key steps for applying the 3 materials shown in IMAGE 2 to this patient.



Correction notes
may also refer to stoma paste or adhesive gel strips but not required for answer

Maximum total amount of characters allowed for the answer
250

1. ***pack wound bed with foam***
2. ***apply occlusive adhesive dressing over the foam* overlapping the adjacent skin**
3. ***cut hole in film dressing***
4. ***apply suction tubing mouth to cover this hole* (or similar description)**
5. **(1 pt for 3, 2 pts for 4)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12143**
Author	**Yool**
Key Feature:	**6. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**17**

17. Question
You apply the negative pressure wound dressing. After 40 hours, the pump alarms indicating there is a problem. You check the power supply, which is on, and the canister which is half full.

Question 7: What other things will you check to establish the cause of the alarm?

Correction notes

Maximum total amount of characters allowed for the answer
180

1. **Check for point of leakage: e.g. tears in dressing or tube, lifting of dressing, pressure generated**
2. **Check for blockage: e.g. blockage or kink in tubing**
3. **(2 pts for all)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12144**
Author	**Yool**
Key Feature:	**7. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**18**

18. Question
You address the initial issue with the system, proceed with a dressing change on the 3rd day and, after the 6th day, remove the dressing completely. The wound has contracted in size, has a healthy granulation tissue bed, and has no evidence of necrotic debris. Surface cytology shows no evidence of on-going wound infection. Review IMAGE 3.

- IMAGE 3: wound following removal of negative pressure dressing. The head is towards the left and the patient is in dorsal recumbency revealing the ventral thorax and cranial abdominal wall.

Question 8: You recommend wound reconstruction using a SINGLE AXIAL PATTERN FLAP. Which flap would be MOST appropriate for reconstruction of this wound?

Correction notes
No pts for axillary skin fold flap

Maximum total amount of characters allowed for the answer
75

1. ***Cranial superficial epigastric* axial pattern flap**
2. ***Lateral thoracic flap***
3. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12145**
Author	**Yool**
Key Feature:	**8. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**19**

19. Question
You decide to reconstruct the wound with a cranial superficial epigastric axial pattern flap.

Question 9: After elevation of the flap, DESCRIBE how you will suture it in place to reduce the risk of complications.

Correction notes
May also state suture in place over a drain but not required for pts.

Maximum total amount of characters allowed for the answer
75

1. **'avoid placement of sutures between the flap and wound bed' OR 'suture the peripheral edge of the flap to the wound bed margin' OR 'place sutures avoiding the main vessel'**
2. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12146**
Author	**Yool**
Key Feature:	**9. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**20**

20. Question
You place a cranial superficial epigastric axial pattern flap to reconstruct the wound (IMAGE 4). After 96 hours, you re-assess the patient and note change in appearance of the flap indicating likely necrosis (IMAGE 5).

- IMAGE 4: the flap immediately postoperatively.
- IMAGE 5: the flap 96 hours postoperatively.
- In both images the head is towards the left and the dog is in ventral recumbency.

Question 10: What is the most likely EXPLANATION for the suspected necrosis?

--- End of Case ---

Correction notes

Maximum total amount of characters allowed for the answer
50

1. **Vascular compromise of the flap.**
2. **(2 pts)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12177**
Author	**Barthelemy**
Key Feature:	**Master question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**21**

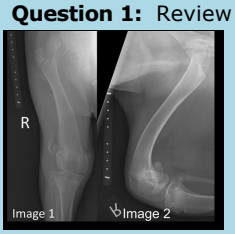
21. Question

Case 6

A 4.5-month-old, male entire, Newfoundland dog, weighing 20kg, is presented to you for bilateral hindlimb lameness. The dog is reluctant to play and is not able to walk far. The dog is more affected on the right hindlimb. Radiographs of the right hindlimb are shown in IMAGE 1 and 2.

- IMAGE 1: Cranio-caudal view of the right femur (horizontal beam)
- IMAGE 2: Lateral view of the right femur

Question 1: Review IMAGES 1 and 2. List the TWO main abnormal radiographic findings. USE SPECIFIC TERMINOLOGY.



Correction notes
ignore any reference to shape femoral condyle

PBF would also accept open femoral neck angle or other description of coxa valga or increased angle of inclination

Maximum total amount of characters allowed for the answer
130

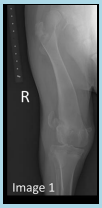
1. **Lateral patella luxation**
2. **Distal femoral valgus / genu valgum**
3. **Proximal femoral valgus/coxa valga**
4. **(2 pts for *LPL* + Distal femoral valgus or proximal valgus)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12178**
Author	**Barthelemy**
Key Feature:	**1. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**22**

22. Question
You diagnose a grade 4 lateral patella luxation, a coxa valga and a distal femoral valgus.

- IMAGE 1: Cranio-caudal view of the right femur

Question 2: STATE which PRIMARY technique you will choose to correct the grade 4 patella luxation in this case. BE SPECIFIC but you do not require to describe specific implants in your answer.



Correction notes

Maximum total amount of characters allowed for the answer
200

1. **Medial Closing wedge osteotomy**
2. **Lateral opening osteotomy**
3. **Circular cut-Dome osteotomy**
4. **radial/cylindrical osteotomy**
5. **Temporary medial growth plate**
6. **stapling/pinning /epiphysiodesis**
7. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12179**
Author	**Barthelemy**
Key Feature:	**2. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**23**

23. Question
You identify a shallow trochlear groove. As part of the patellar luxation correction, you want to surgically deepen the trochlear groove.

Question 3: Given the age of the patient (4.5-months-old), which technique, sparing the articular cartilage, could you use (excluding trochlear block recession and trochlear wedge recession)?

Correction notes
Also accept trochlear condroplasty but not trochleoplasty in isolation

Maximum total amount of characters allowed for the answer
30

1. **Chondroplasty**
2. **(2 pts for correct answer)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12180**
Author	**Barthelemy**
Key Feature:	**3. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**24**

24. Question
As part of the surgery to correct the lateral patella luxation, you perform a medial tibial tuberosity transposition.

Question 4: Which technique of tibial tuberosity fixation will you use to limit the risk of tuberosity avulsion? DESCRIBE any implant(s) used as well as their direction. (Implant size is not required.)

Correction notes

Maximum total amount of characters allowed for the answer
80

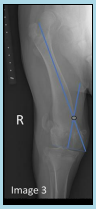
1. **At least *2 pins* and *orientated caudo-proximally***
2. **Tension band + Pin(s) (any direction accepted)**
3. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12181**
Author	**Barthelemy**
Key Feature:	**4. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**25**

25. Question
You are planning to surgically correct the distal femoral valgus. Review IMAGE 3 (pre-operative cranio-caudal view of the right femur) which you collect to help plan the procedure.

- IMAGE 3: Pre-operative cranio-caudal view of the right femur (horizontal beam). The intersection of the two lines represents the center of rotation of angulation (CORA)

Question 5: EXPLAIN what will be the main technical challenge for osteotomy fixation, if the osteotomy is performed at the level of the center of rotation of angulation (CORA) in this dog?



Correction notes

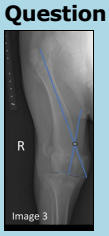
1. **To not bridge/close the (distal) growth plate with osteosynthesis / plate/external fixator**
2. **Being able to fix the distal fragment without being into or bridging the growth plate**
3. **CORA is close to growth plate which lead to limited bone purchase**
4. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12182**
Author	**Barthelemy**
Key Feature:	**5. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**26**

26. Question
To correct the distal femoral valgus, a cylindrical osteotomy is planned to be performed. To avoid the growth plate, the osteotomy and the angulation correction axis (ACA) are positioned proximal to the center of rotation of angulation (CORA) (see IMAGE 3).

- IMAGE 3: Pre-operative cranio-caudal view of the femur (horizontal beam). The intersection of the two mechanical axis (circle with light center) represents the center of rotation of angulation (CORA)

Question 6: What effect will this have on the correction? BE SPECIFIC.



Correction notes

Maximum total amount of characters allowed for the answer
150

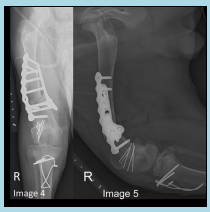
1. ***Translation* of the (distal) fragment / mechanical axis**
2. **The two mechanical axis are parallel but not aligned**
3. **Good alignment-wrong apposition**
4. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12183**
Author	**Barthelemy**
Key Feature:	**6. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**27**

27. Question
In addition to the cylindrical osteotomy, a block recession trochleoplasty has been performed and postoperative radiographs have been collected (IMAGES 4 and 5).

- IMAGE 4: Post-operative radiograph of the right femur, cranio-caudal view (horizontal beam).
- IMAGE 5: Post-operative radiograph of the right femur, lateral view.

Question 7: What is the MOST LIKELY complication that has been addressed by placing several small Kirschner wires in the distal FEMUR of this dog?



Correction notes

Maximum total amount of characters allowed for the answer
80

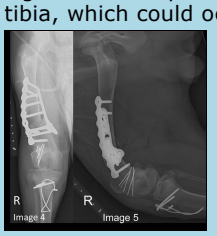
1. **To fix/repair/strengthen a Fracture/fissure/weakening of (lateral) trochlear (ridge)**
2. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12184**
Author	**Barthelemy**
Key Feature:	**7. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**28**

28. Question
A tibial tuberosity transposition has been performed (review IMAGES 4 and 5).

- IMAGE 4: Post-operative radiograph of the right femur, cranio-caudal view (horizontal beam).
- IMAGE 5: Post-operative radiograph of the right femur, lateral view.

Question 8: In addition to implant failure, tuberosity avulsion fracture and surgical site infection, what is the most significant complication for this puppy, directly associated with the use of 2 Kirschner wires and tension band in the tibia, which could occur within the following months?



Correction notes

Maximum total amount of characters allowed for the answer
130

1. **Premature closure of tibial tuberosity growth plate OR**
2. **patella baja /infera**
3. **Tibial "drift"**
4. **(2 pts for any)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12185**
Author	**Barthelemy**
Key Feature:	**8. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**29**

29. Question
You are concerned about the risk that the Kirschner wires and tension band could lead to premature closure of the tibial tuberosity growth plate in this dog.

Question 9: What can you do to reduce the risk of this complication? BE SPECIFIC

Correction notes

Maximum total amount of characters allowed for the answer
80

1. **To Remove *Pin AND Tension Band* OR *tension band wire***
2. **between 3 and 6 weeks**
3. **(2 pts for all)**

Type	**Free text question, (Max: 2.00 Points)**
Question-ID:	**12186**
Author	**Barthelemy**
Key Feature:	**9. Subsequent question**
Randomized:	**No**
Block no.:	**1**
Block name:	
Order:	**30**

30. Question
The puppy has been strictly cage rested for 4 weeks. At the 4-week recheck, you have diagnosed a partial quadriceps contracture. You are planning to do the same surgeries on the contralateral leg (corrective osteotomy fixed with 2 plates, tibial tuberosity transposition and block recession trochleoplasty).

Question 10: List TWO treatments that you would recommend within the first 7days post-operatively to help to prevent a quadriceps contracture on the contra-lateral leg.

--- End of Case ---

Correction notes
Excluding hydrotherapy

1. ***Analgesia* (anti-inflammatory medications -paracetamol-any opioids besides Tramadol alone)**
2. ***Cryotherapy* (would accept cold pack)**
3. ***Early physiotherapy* (or passive range of motion exercises or Weight bearing exercises – or weight shifting exercises or stair climbing – or sit to stand-)**
4. **90-90 flexion splint /sling (24-72 hours)**
5. **(2 pts for 2)**