Scenario: Medical Retrieval/Transfer		
Scenario: T5 Head Injury – Retrieval/Transfer	**Patient:** Name Elizabeth Taylor 63 year old woman	**Simulator** SIMMAN Essential or equivalent

Case Summary:	**Participant Briefing:**
63 year old woman, Elizabeth Taylor Brought in by local ambulance after falling from her horse at a trot. She was not wearing her helmet. Brief LOC witnessed by family, then confused on scene. On arrival in ED GCS 12 (eyes to speech, confused words and localising to pain). Her airway is uncomplicated, she has good air entry bilaterally, she is haemodynamically stable. There is no evidence of other injuries. The ambulance crew have collared her and put in an IVC. Local resources are as available at the hospital. If CT is available there is a small extradural. The team should contact retrieval services for transfer to site with neurosurgical capability. There is clear urgency for this transfer. The patient will not deteriorate in this scenario, as the point is the retrieval/transfer consultation. Though, if able/time/skill mix routine intubation may be performed.	Shift handover – "63 year old woman, Elizabeth Taylor, brought in by ambulance after falling from her horse at a trot. She was not wearing her helmet. She had a brief LOC and has remained confused since. Nil other evident injuries. HR 115, BP 130/70, Sats 100% on O2. Her GCS is 12. She has a C-spine collar on and a cannula. She has had 5 mg IV morphine and 10mg maxalon. If CT scanning is available at site then CT shows small extradural haemorrhage and the story will need to be that the staff managing this patient organized the scan and had to attend to a cardiac arrest in the next bay and that the new team has just come onto shift. And the patient has just returned from the scanner." She has nil other PMHx, NKDA

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Clinical Issues	**Human factors / Non technical issues**
Structured AcBCDE approach to adult head injured trauma patients Recognition of risk of head injured patient with potential extradural Communication with the retrieval service Preparation and packaging of the trauma patient	Communication in a team Over the phone communication Leadership

Learning Objectives

Communicate with the medical retrieval service/receiving unit or neurosurgical team

Demonstrate a structured assessment of a trauma patient with head injury

Demonstrate preparation and packaging for medical retrieval

Faculty Actors: Faculty nurse, MRU consultant (via phone link to SCSSC)

PLEASE NOTE THIS SCENARIO WILL NEED TWO STAFF AT SCSSC – one for MRU consultant and another debriefer to watch events on screen. Both to debrief.

Patient Moulage:

Moulage IV access, C-spine Collar, Street Clothes (for horse riding)

Equipment & Props:

EdWISE trauma box and Extras
Local protocols

Monitor: ED setup HR, Sats, BP monitoring.	**Investigations:** XR pelvis XR – C spine – normal Xr – Chest - normal FAST images – normal CT scan – small extradural haemorrhage, with no midline shift.	

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Patient presentation	Expected response by participants	Faculty /Actors Notes
Initial Presentation Rhythm sinus rhythm HR 100 BP 120/60 RR 15 SPO2 98% on oxygen (hudson) Temp 36 Conscious level – confused (V4), eyes open to voice (E3), Limbs localise to pain (M5) – GCS 12	Team should perform primary/secondary survey. AcBCDE approach to the patient. Left parietal haemotoma/tenderness C-spine collar placement checked. Airway patent and protected, not expected difficult. AE bilaterally equal, nil added Abdomen soft non tender, negative FAST BSL 7.6 Team should be thinking about transfer of this patient to a neurosurgical centre. This will involve telephone calls to site appropriate services. The team should allocate roles to maintain the observation +/- treatment of the patient and also to arrange for transfer of the patient from their hospital to another site. If the team has the skill set, this may involve intubation or the patient, NG tube placement, urinary catheter, organizing scans to be sent, etc.	Faculty nurse gives the handover and then is helpful throughout the scenario, assisting team with finding equipment as required. If wanting to intubate, suggest call MRU whilst preparing for intubation. Depending on skill mix of group the faculty may elect to have the patient intubated. This should only be advised if this is a skill set which would be normal for these participants. **Extra information is weight – 75kg, date of birth 11 January 1949 (in 2012) or 1950 (in 2013)**

Ongoing Management: Observations fluctate based on teams actions If analgesia : decrease HR slightly If excessive movement: increase vocalisation If intubation: uncomplicated	**Team should call MRU/receiving unit/ambulance transfer request (faculty at SCSSC to answer call) to request retrieval.** Note for junior team MRU consultant can give advise over the phone. Emphasise – Time critical nature Avoid hypoxia Normalise temperature, BP, BSL Elevate head of the bed Avoid excessive changes in observations if intubated (consider agents and doses of medications), aim normocarbia.	MRU typically seeks information in a set format in critically unwell patients and an ABCD approach standardises this. Clinical details – Full name, date of birth, weight, the history, physical examination, investigations, treatments, medications, allergies, and the reason for transfer A – ? intubated ? C-spine collar on ? NGT B – Resp rate, sats, FiO2, work of breathing, and all the ventilator settings C – Pulse rate, BP, perfusion, urine output and ECG D – GCS and pupils Access – IV cannulae, Intra-osseous, Central lines, arterial lines, IDC Medications – IV fluids (including blood products), drugs given (e.g.. Thrombolytic, Antibiotics etc), and current infusions (sedation, inotropes) Results – Blood results - FBC, UEC, Blood gases, BSL, trop, lactate (as available), and other investigations (X-rays, CT etc) Emphasis on the time critical nature of extradural management is important and should be the role of the MRU consultant.

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Debrief: Given the complexities of this scenario with a phone call and a scenario continuing simultaneously, 2 debriefers are recommended. One to act as the MRU consultant and feedback regarding this call. The other to debrief the ongoing care of the patient. It is important to review the interaction between the individual making the phone call and those who are continuing the care of the patient.	
Clinical Skills	**Non-Technical Skills**
Structured approach to the primary and secondary survey **Recognition and management of the extradural head injury** Communication with medical retrieval services Preparation and planning for transfer	**Communication in teams**

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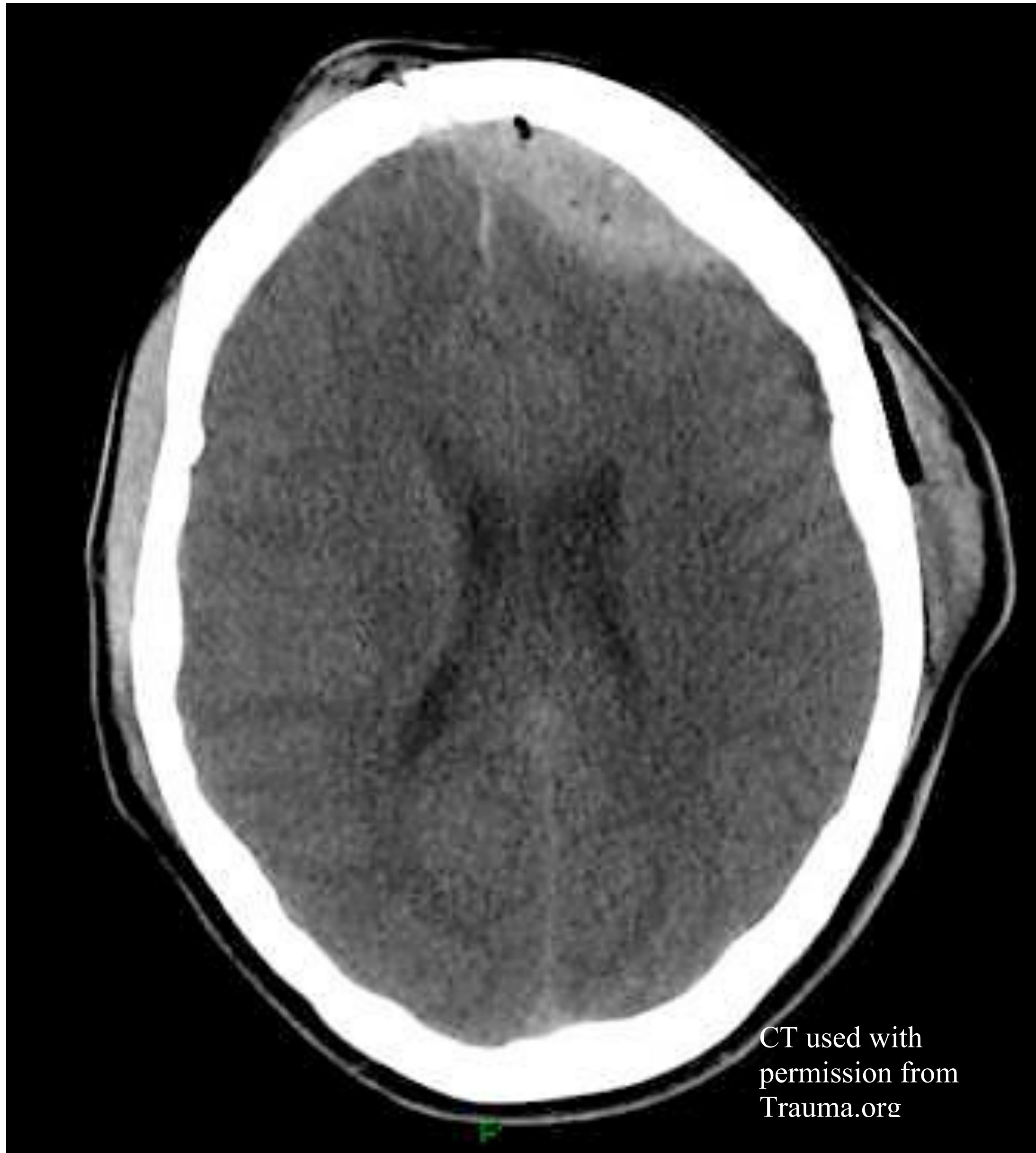

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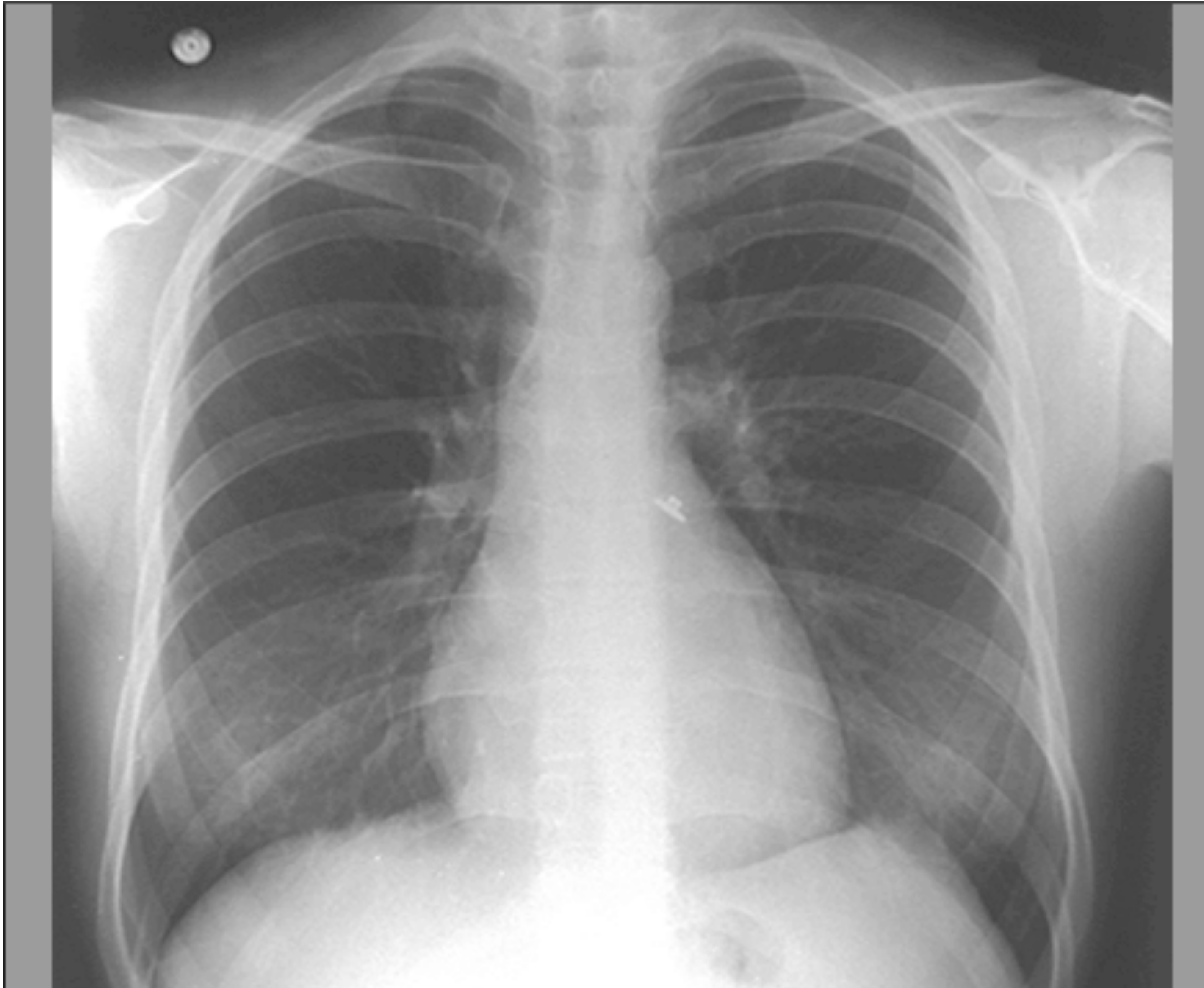

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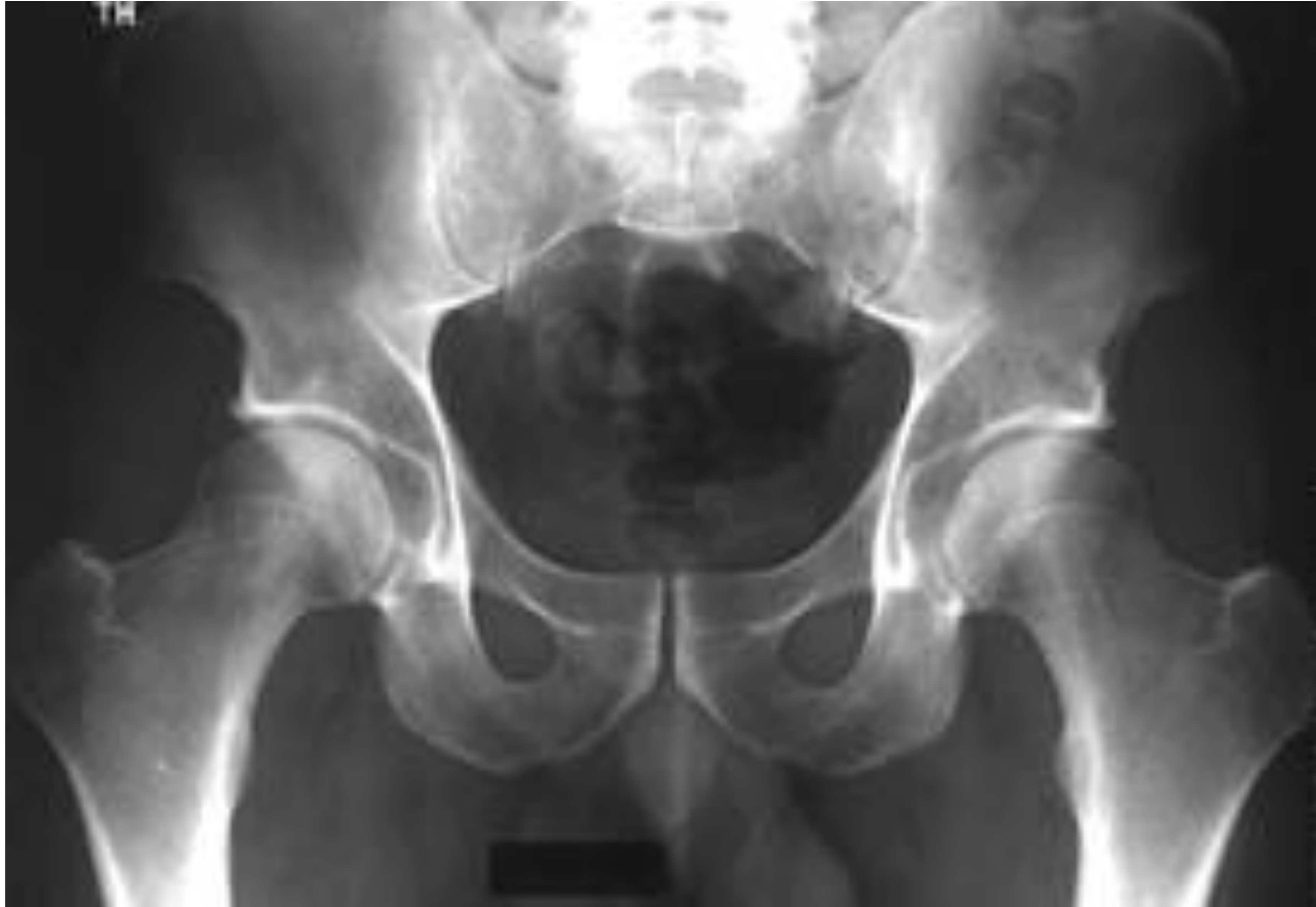

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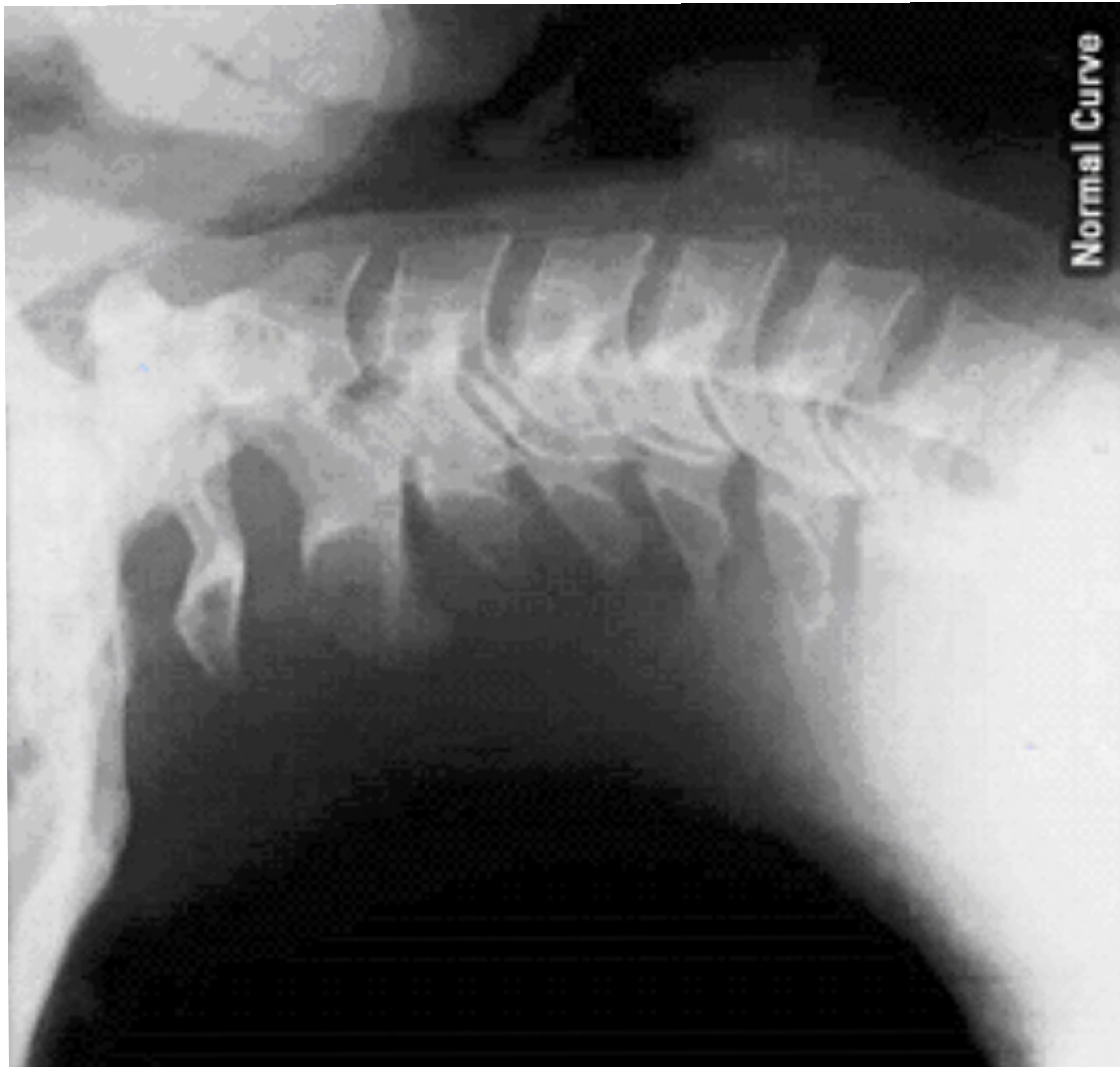

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