

FURTHER SUPPLEMENTAL BRIEF FOR EXPERT ON RADIOLOGY

ADAM STRAIN

Introduction

1. You will already have received briefs and accompanying chest x-rays taken at 1.20pm and 9.30pm on 27th November 1995.
2. We would now like your comment and opinion on the following issues.

Background

Pre-treatment chest x-ray

3. A form to request a pre-treatment chest x-ray was completed by a Dr Donagh O'Neill, SHO at the Royal Belfast Hospital for Sick Children (RBHSC) on 26th November 1995 and was filed in the patient's record (Ref: 057-019-028 attached). The reverse of the form was not completed (Ref: 057-019-029 attached).
4. Dr O'Neill confirmed in a witness statement to the Inquiry that he "*ordered a chest x-ray on 26th November 1995*" (Ref: WS-004/1, p.2). He stated in a further witness statement to the Inquiry that this was done "*at the request of the renal team.*" (Ref: WS-004/2, p.6).
5. Dr Maurice Savage, Consultant Paediatric Nephrologist, noted in his clinical notes at 1.00am on 27th November 1995 that "*x-rays all available and present*" (Ref: 058-035-133).
6. The Admission Protocol for Renal Transplantation in small children that was in use at the RBHSC named "*CXR*" as one of the "*Investigations on Admission*" for patients awaiting paediatric renal transplant.
7. Unfortunately, the Inquiry has not been provided with any x-ray performed prior to the start of Adam Strain's renal transplant surgery at 7.00am on 27th November 1995.
8. In correspondence with the RBHSC, the Inquiry Secretary received the following response dated 28th October 2011 (Ref:301-095):

"I am instructed that there is no record of any x-ray being performed prior to Adam's transplant surgery on 27th November 1995. A form to request a pre-treatment chest x-ray completed by Dr O'Neill on 26th November 1995 is filed in the patient's record (057-019-028). Its presence in the medical records and the fact that the reverse of the form (057-019-029) has not been completed by a radiographer indicates that it was not

submitted to radiology and that therefore no x-ray was performed. There is no Kv and mas (voltage and current x time) or radiographer's initials written on the back of the form. Under Ionizing Radiation Regulations an examination would not have been performed without an appropriately completed request form which would have been retained by the department. I am instructed that the Trust can find no record of Doctor Savage requesting a chest x-ray prior to transplant."

Chest x-ray performed at 1.20pm on 27th November 1995 (2 hours after the end of the operation)

9. The Inquiry thanks you for your prompt provision of your report dated 27th October 2011 in which you commented on this x-ray.
10. In your report, you stated that this chest x-ray was "*consistent with the absence of subcutaneous oedema*" (p.2, part (c))
11. Dr Maurice Savage commented in his deposition to the Coroner at Adam's Inquest that "*[a] chest x-ray showed pulmonary oedema*". He commented in his clinical notes of 27th November 1995 at 8.30pm to "*[r]epeat CXR at bedtime to see if pulmonary oedema cleared*".

Chest x-ray performed at 9.30pm on 27th November 1995 (10 hours after the end of the operation)

12. The Inquiry thanks you for your prompt provision of your report dated 29th November 2011 in which you commented on this x-ray.
13. In your report, you stated "*the lungs are clear on both radiographs*" and that "*there is no radiological evidence of soft tissue swelling on either film*". (p.2, "Conclusion")
14. Following this x-ray, Dr Jean McKnight, Locum Registrar in Paediatrics at RBHSC, recorded in Adam Strain's clinical notes, "*[r]epeat CXR 10pm – still quite marked pul oedema. Fluid in horizontal fissure*". (Ref: 058-035-142 – the time of the note is unknown) Dr McKnight commented in her Inquiry Witness Statement that the chest x-ray was "*still abnormal*" and that the appearance of the fluid in the horizontal fissure "*would be suggestive of continuing pulmonary oedema*" (Ref: WS-114/1, p. 4).
15. Dr Robert Taylor, Consultant Paediatric Anaesthetist, who was present during Adam's renal transplant procedure, noted in the clinical notes at 7:45am on 28th November 1995, "*Diffuse oedema on CXR.*" (Ref: 058-035-142)

Requirements

16. The Inquiry team requires your assistance with the following matters:
- (1) Pre-treatment chest x-ray
 - (a) Please comment generally on the response of the RBHSC dated 28th October 2011 above.
 - (b) In particular, please comment as to whether or not, in your opinion, a pre-treatment x-ray may have been carried out, and explain whether you agree with their assessment of the papers.
 - (2) Chest x-ray performed at 1.20pm
 - (a) Please comment on Dr Savage's assessment that the "*chest x-ray showed pulmonary oedema.*"
 - (3) Chest x-ray performed at 9.30pm
 - (a) Please comment on Dr McKnight's assessment that the repeat chest-x-ray showed "*still quite marked pulmonary oedema.*"
 - (b) Please comment on whether this chest x-ray showed "*fluid in [the] horizontal fissure*".
 - (c) Please explain the significance of the presence of "*fluid in the horizontal fissure*" on a chest x-ray to show pulmonary oedema.
 - (d) Please comment on Dr Taylor's assessment that the repeat chest x-ray showed "*[d]iffuse oedema on CXR*".

Attached documents

17. The following documents are attached for your assistance:
- (1) X-ray request form, 26th November 1995 (Ref: 057-019-028 to 029)

Conclusion

18. It is of fundamental importance that the Inquiry receives a clear and reasoned opinion on these issues.
19. Your assistance on the Inquiry's requirements should be provided in the form of an Expert's Report (please reference if necessary).