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Clinical governance implications of a Victorian coronial finding regarding contrast-related anaphylaxis for health services and private providers of radiology services

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© 2023 The Author(s) (or their employer(s)). Published by CSIRO Publishing on behalf of AHHA. Anaphylaxis to contrast media is rare but potentially fatal. A coronial inquest in Victoria highlighted a gap in processes and skills for managing contrast-related anaphylaxis in a private, stand-alone radiology clinic.¹ Key findings were that all staff (radiographers and radiologists) had little to no practical training in the management of contrast reactions, the radiologist present was not aware of the current guidelines prescribed by the clinic or of any visual displays of the guidelines and the radiologist was inadequately prepared for the medical emergency. The Coroner recommended that specific training in the management of anaphylaxis should be implemented for radiologists and radiographers. These recommendations were directly at professional bodies but, because they relate to clinical governance, they are also relevant to health services and private companies providing radiology services.

This gap in knowledge, confidence and processes was not unknown.² An Australian survey published in 2014 reported that about 40% of radiologists/radiology trainees assessed themselves as lacking knowledge in managing a contrast-related anaphylactic reaction and in dosing and administration of adrenaline.³ The reported deficit in knowledge was larger for clinicians who had completed basic life support training more than 3 years previously. Similar findings have been reported in American and UK studies.^{4,5}

In 2021, The Australian Commission for Safety and Quality in Healthcare released its *Acute Anaphylaxis Clinical Care Standard*.⁶ The first two quality statements focus on prompt recognition of anaphylaxis and immediate injection of intramuscular adrenaline, before any other treatment including asthma medicines, corticosteroids and antihistamines. As at the date of writing, the Royal Australian and New Zealand College of Radiologists and the Medical Radiation Practice Board are not listed as having endorsed this document.

Several small studies have shown that education, especially targeted training involving simulation, can improve knowledge and confidence for treating contrast-related anaphylaxis.^{2,4,5,7} Unfortunately, to the authors' knowledge to date, these strategies are not widely embedded in hospital mandatory competency requirements for radiographers and radiologists or in credentialing requirements for stand-alone radiology clinics.

As clinical competency to manage foreseeable emergencies is a matter of clinical governance, there is a strong case for health service and corporate governance teams (for stand-alone clinics) to take a lead in making appropriate training mandatory and in partnering with training providers to ensure it is available to staff in a format and location that facilitates participation and skill development. Reliance on an ambulance response, given the known delays, is not enough.

References

- Inquest into the Death of Peta Hickey (Coroners Court of Victoria, 22 November 2021) COR 2019 2336. Available at https://www.coronerscourt.vic.gov.au/sites/default/files/2021-12/HickeyPeta_233619.pdf
 Pitman AG, Van Dijk J, Cunningham NJ. Resuscitation skills for radiologists: a short paper. J Med
- Imaging Radiat Oncol 2008; 52: 463–70. doi:10.1111/j.1440-1673.2008.01991.x
- 3 Craig S, Naidoo P. Emergencies in radiology: a survey of radiologists and radiology trainees. J Med Imaging Radiat Oncol 2014; 58: 164–71. doi:10.1111/1754-9485.12125

- 4 Wheeler M, Powell E, Pallmann P. Use of High-fidelity simulation training for radiology healthcare professionals in the management of acute medical emergencies. *Br J Radiol* 2021; 94(1117): 20200520. doi:10.1259/bjr.20200520
- 5 Pfeifer K, Staib L, Arango J, Kirsch J, Arici M, Kappus L, Pahade J. High-Fidelity Contrast Reaction Simulation Training: Performance Comparison of Faculty, Fellows, and Residents. J Am Coll Radiol 2016; 13: 81–7. doi:10.1016/j.jacr.2015.08.016
- 6 Australian Commission for Safety and Quality in Healthcare. Acute Anaphylaxis Clinical Care Standard. Sydney: ACSQHC; 2021.

Available at https://www.safetyandquality.gov.au/sites/default/ files/2022-06/acute_anaphylaxis_clinical_care_standard_2022.pdf [accessed 26 June 2023].

7 Coupal TM, Buckley AR, Bhalla S, Li JL, Ho SGF, Holmes A, Harris AC. Management of Acute Contrast Reactions-Understanding Radiologists' Preparedness and the Efficacy of Simulation-Based Training in Canada. Can Assoc Radiol J 2018; 69: 349–55. doi:10.1016/j.carj.2018.05.003

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