

# ICM7067 Fundamentals of Research

This module is designed to give students a basic grounding in academic medicine, in preparation for the more detailed and specialist modules that follow.

View Online



1.

Rothwell, Peter M.1 peter.rothwell@clneuro.ox.ac.uk. External validity of randomised controlled trials: 'To whom do the results of this trial apply?'. Lancet [Internet]. 2005;365(9453):82-93. Available from: <https://www-sciencedirect-com.ezproxy.library.qmul.ac.uk/journal/the-lancet/vol/365/issue/9453>

2.

Robin Harbour and Juliet Miller. A New System For Grading Recommendations In Evidence Based Guidelines. BMJ: British Medical Journal [Internet]. 2001;323(7308):334-6. Available from: [http://www.jstor.org/stable/25467609?pq-origsite=summon&seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/25467609?pq-origsite=summon&seq=1#page_scan_tab_contents)

3.

Greenhalgh T, Howick J, Maskrey N. Evidence based medicine: a movement in crisis? BMJ. 2014 Jun 13;348(jun13 4):g3725-g3725.

4.

Read: How to Read a Paper [Internet]. Available from: <http://ezproxy.library.qmul.ac.uk/login?url=http://www.vlebooks.com/vleweb/product/openreader?id=QMUL&isbn=9781118801116&uid=^u>

5.

Gosall NK, Gosall GS. The doctor's guide to critical appraisal. Fourth edition. Knutsford, Cheshire: PasTest; 2015.

6.

American Medical Association. Users' guides to the medical literature: A manual for evidence-based clinical practice [Internet]. Third edition. Guyatt G, Rennie D, Meade M, Cook D, editors. New York: McGraw-Hill Education Medical; 2015. Available from: <https://www.vlebooks-com.ezproxy.library.qmul.ac.uk/Vleweb/Product/Index/465564?page=0>

7.

Costa ML, Achten J, Bruce J, Tutton E, Petrou S, Lamb SE, et al. Effect of Negative Pressure Wound Therapy vs Standard Wound Management on 12-Month Disability Among Adults With Severe Open Fracture of the Lower Limb. JAMA. 2018 Jun 12;319(22).

8.

Health Research Authority - Protecting and promoting the interests of patients and the public in health research [Internet]. Available from: <http://www.hra.nhs.uk/>

9.

Home - Getting the best from IRAS [Internet]. Available from: <https://www.myresearchproject.org.uk/ELearning/index.html>

10.

Research governance framework for health and social care: second edition - GOV.UK [Internet]. Available from: <https://www.gov.uk/government/publications/research-governance-framework-for-health-and-social-care-second-edition>

11.

Research Governance Frameworks - Health Research Authority [Internet]. Available from: <http://www.hra.nhs.uk/resources/research-legislation-and-governance/research-governance-frameworks/>

12.

Data protection: The Data Protection Act - GOV.UK [Internet]. Available from: <https://www.gov.uk/data-protection/the-data-protection-act>

13.

Sinclair HL, Andrews PJ. Bench-to-bedside review: Hypothermia in traumatic brain injury. *Critical Care*. 2010;14(1).

14.

RDS London - Research design service [Internet]. Available from: <https://www.rds-london.nihr.ac.uk/>

15.

The CRASH-2 trial: a randomised controlled trial and economic evaluation of the effects of tranexamic acid on death, vascular occlusive events and transfusion requirement in bleeding trauma patients [Internet]. Available from: <https://www.journalslibrary.nihr.ac.uk/hta/hta17100/#/abstract>

16.

Harris, M. *Medical Statistics Made Easy* [Internet]. Available from: <https://ebookcentral.proquest.com/lib/gmul-ebooks/detail.action?docID=183415>

17.

Petrie A, Sabin C. *Medical statistics at a glance* [Internet]. Vol. The at a glance series. Chichester, West Sussex: Wiley-Blackwell; 2013. Available from: <http://web.b.ebscohost.com.ezproxy.library.qmul.ac.uk/ehost/detail/detail?vid=0&sid=48f37c11-e2e1-48e2-9e10-7e31fae47a8f%40sessionmgr103&bdata=JnNpdGU9ZWhtvc3QtbGl2ZQ%3d%3d#AN=2206759&db=nlebk>

18.

Read An introduction to medical statistics at VLeBooks.com [Internet]. Available from: <https://www-vlebooks-com.ezproxy.library.qmul.ac.uk/Vleweb/Product/Index/572973?page=0>

19.

Gardner MJ, Altman DG, British medical journal. Statistics with confidence: confidence intervals and statistical guidelines [Internet]. London: British Medical Journal; 1989. Available from:  
<https://ebookcentral.proquest.com/lib/gmul-ebooks/detail.action?docID=1813669>

20.

Hulley SB. Designing clinical research: an epidemiologic approach [Internet]. 2nd ed. Philadelphia: Lippincott Williams & Wilkins; 2001. Available from:  
<https://ebookcentral.proquest.com/lib/gmul-ebooks/detail.action?docID=2031635>

21.

Haynes RB. Clinical epidemiology: how to do clinical practice research [Internet]. 3rd ed. Philadelphia: Lippincott Williams & Wilkins; 2006. Available from:  
<https://ebookcentral.proquest.com/lib/gmul-ebooks/detail.action?docID=3418215>

22.

Kenneth F. Schulz, Douglas G. Altman, David Moher and Kenneth Schulz. CONSORT 2010 Statement: updated guidelines for reporting parallel group randomised trials. BMJ: British Medical Journal [Internet]. 2010;340(7748):698–702. Available from:  
[http://www.jstor.org/stable/40702665?pq-origsite=summon&seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/40702665?pq-origsite=summon&seq=1#page_scan_tab_contents)

23.

Grimes DA, Schulz KF. An overview of clinical research: the lay of the land. The Lancet. 2002 Jan;359(9300):57–61.

24.

Livingston EH. Introducing the JAMA Guide to Statistics and Methods. JAMA. 2014 Jul 2;312(1).

25.

Statistics notes | The BMJ [Internet]. Available from:

<http://www.bmj.com/specialties/statistics-notes>

26.

Gosall NK, Gosall GS. The doctor's guide to critical appraisal. Fourth edition. Knutsford, Cheshire: PasTest; 2015.

27.

Akobeng AK. Understanding measures of treatment effect in clinical trials. Archives of Disease in Childhood. 2005 Jan 1;90(1):54-6.

28.

Akobeng AK. Understanding randomised controlled trials. Archives of Disease in Childhood. 2005 Aug 1;90(8):840-4.

29.

Planning and improving research - Health Research AuthorityHRA Health Research Authority [Internet]. Available from:  
<https://www.hra.nhs.uk/planning-and-improving-research/>

30.

Mental Capacity Act 2005. Available from:  
<https://www.legislation.gov.uk/ukpga/2005/9/contents>

31.

Coats TJ. Consent in emergency research: new regulations. Emergency Medicine Journal. 2005 Oct 1;22(10):683-5.

32.

Rothman KJ, Greenland S, Lash TL. Modern epidemiology. 3rd ed., thoroughly rev. and updated. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2008.

33.

Hosmer DW, Lemeshow S, Sturdivant RX. Applied logistic regression [Internet]. Third edition. Vol. Wiley series in probability and statistics. Hoboken, New Jersey: Wiley; 2013. Available from: <https://ebookcentral.proquest.com/lib/gmul-ebooks/detail.action?docID=1138225>

34.

Does more intensive treatment of acute myocardial infarction in the elderly reduce mortality? Analysis using instrumental variables. - PubMed - NCBI. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/8078163>

35.

Thomas SH, Mumma S, Satterwhite A, Haas T, Arthur AO, Todd KH, et al. Variation Between Physicians and Mid-level Providers in Opioid Treatment for Musculoskeletal Pain in the Emergency Department. The Journal of Emergency Medicine. 2015 Oct;49(4):415–23.

36.

Cochrane Handbook for Systematic Reviews of Interventions | Cochrane Training [Internet]. Available from: <http://training.cochrane.org/handbook>

37.

van Wely M. The good, the bad and the ugly: meta-analyses. Human Reproduction. 2014 Aug 1;29(8):1622–6.

38.

Cochrane Collaboration. Cochrane handbook for systematic reviews of interventions [Internet]. Higgins JPT, Green S, editors. Chichester, England: Wiley-Blackwell; Available from: <http://ezproxy.library.qmul.ac.uk/login?url=https://onlinelibrary.wiley.com/doi/book/10.1002/9781119536604>

39.

Fowler AJ, Ahmad T, Phull MK, Allard S, Gillies MA, Pearse RM. Meta-analysis of the association between preoperative anaemia and mortality after surgery. *British Journal of Surgery*. 2015 Oct;102(11):1314–24.

40.

Perla RJ, Provost LP, Murray SK. The run chart: a simple analytical tool for learning from variation in healthcare processes. *BMJ Quality & Safety*. 2011 Jan 1;20(1):46–51.

41.

Anhøj J, Olesen AV. Run Charts Revisited: A Simulation Study of Run Chart Rules for Detection of Non-Random Variation in Health Care Processes. *PLoS ONE*. 2014 Nov 25;9(11).

42.

Dixon-Woods M, McNicol S, Martin G. Ten challenges in improving quality in healthcare: lessons from the Health Foundation's programme evaluations and relevant literature: Table 1. *BMJ Quality & Safety*. 2012 Oct;21(10):876–84.

43.

Ogrinc G, Davies L, Goodman D, Batalden P, Davidoff F, Stevens D. SQUIRE 2.0 ( : revised publication guidelines from a detailed consensus process: Table 1. *BMJ Quality & Safety*. 2016 Dec;25(12):986–92.

44.

Chalmers I, Glasziou P. Avoidable waste in the production and reporting of research evidence. *The Lancet*. 2009 Jul;374(9683):86–9.

45.

Glasziou P, Altman DG, Bossuyt P, Boutron I, Clarke M, Julious S, et al. Reducing waste from incomplete or unusable reports of biomedical research. *The Lancet*. 2014 Jan;383(9913):267–76.

46.

Chan AW, Song F, Vickers A, Jefferson T, Dickersin K, Gøtzsche PC, et al. Increasing value and reducing waste: addressing inaccessible research. *The Lancet*. 2014 Jan;383(9913):257–66.

47.

Doctors' use of social media (2013). Available from:  
[http://www.gmc-uk.org/guidance/ethical\\_guidance/21186.asp](http://www.gmc-uk.org/guidance/ethical_guidance/21186.asp)

48.

Making and using visual and audio recordings of patients. Available from:  
[http://www.gmc-uk.org/guidance/ethical\\_guidance/making\\_audiovisual.asp](http://www.gmc-uk.org/guidance/ethical_guidance/making_audiovisual.asp)

49.

British Medical Association: Social media practical guidance and best practice [Internet]. Available from:  
<https://www.bma.org.uk/advice/employment/ethics/social-media-guidance-for-doctors>

50.

MDU guide for consultants - Guide to social media - The MDU [Internet]. Available from:  
<https://www.themdu.com/guidance-and-advice/guides/consultant-pack/guide-to-social-media>

51.

Carroll CL, Bruno K, vonTschudi M. Social Media and Free Open Access Medical Education: The Future of Medical and Nursing Education? *American Journal of Critical Care*. 2016 Jan 1;25(1):93–6.

52.

LITFL ☐ Life in the Fast Lane Medical Blog [Internet]. Available from:  
<https://lifeinthefastlane.com/>



53.

EMCrit Blog - Emergency Department Critical Care & Resuscitation [Internet]. Available from: <https://emcrit.org/>

54.

BoringEM | Bringing the boring to emergency medicine [Internet]. Available from: <https://boringem.wordpress.com/>

55.

ICU Podcasts - Intensive Care Network [Internet]. Available from: <http://intensivecarenetwork.com/media/podcasts/icu-podcasts/>

56.

Toxbase Welcome [Internet]. Available from: <https://www.toxbase.org/>

57.

Prehospital and Retrieval Medicine - THE PHARM dedicated to the memory of Dr John Hinds [Internet]. Available from: <https://prehospitalmed.com/>

58.

St.Emlyn's - Emergency Medicine #FOAMed [Internet]. Available from: <http://stemlynsblog.org/>

59.

pulmcrit - EMCrit [Internet]. Available from: <https://emcrit.org/category/pulmcrit/>

60.

STARD initiative [Internet]. Available from: <http://ibooked.no/stard-statement.html>

61.

ARRIVE guidelines | NC3Rs [Internet]. Available from:  
<https://www.nc3rs.org.uk/arrive-guidelines>

62.

NUEM Blog [Internet]. Available from: <http://www.nuemblog.com/>