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.



Akobeng, A. K. 'Understanding Measures of Treatment Effect in Clinical Trials'. Archives of Disease in Childhood, vol. 90, no. 1, Jan. 2005, pp. 54–56, https://doi.org/10.1136/adc.2004.052233.

---. 'Understanding Randomised Controlled Trials'. Archives of Disease in Childhood, vol. 90, no. 8, Aug. 2005, pp. 840–44, https://doi.org/10.1136/adc.2004.058222.

American Medical Association. Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice. Edited by Gordon Guyatt et al., Third edition, McGraw-Hill Education Medical, 2015.

https://www-vlebooks-com.ezproxy.library.qmul.ac.uk/Vleweb/Product/Index/465564?page =0.

Anhøj, Jacob, and Anne Vingaard Olesen. 'Run Charts Revisited: A Simulation Study of Run Chart Rules for Detection of Non-Random Variation in Health Care Processes'. PLoS ONE, vol. 9, no. 11, Nov. 2014, https://doi.org/10.1371/journal.pone.0113825.

ARRIVE Guidelines | NC3Rs. https://www.nc3rs.org.uk/arrive-guidelines.

BoringEM | Bringing the Boring to Emergency Medicine. https://boringem.wordpress.com/. British Medical Association: Social Media Practical Guidance and Best Practice. https://www.bma.org.uk/advice/employment/ethics/social-media-guidance-for-doctors.

Carroll, C. L., et al. 'Social Media and Free Open Access Medical Education: The Future of Medical and Nursing Education?' American Journal of Critical Care, vol. 25, no. 1, Jan. 2016, pp. 93–96, https://doi.org/10.4037/ajcc2016622.

Chalmers, Iain, and Paul Glasziou. 'Avoidable Waste in the Production and Reporting of Research Evidence'. The Lancet, vol. 374, no. 9683, July 2009, pp. 86–89, https://doi.org/10.1016/S0140-6736(09)60329-9.

Chan, An-Wen, et al. 'Increasing Value and Reducing Waste: Addressing Inaccessible Research'. The Lancet, vol. 383, no. 9913, Jan. 2014, pp. 257–66, https://doi.org/10.1016/S0140-6736(13)62296-5.

Coats, T. J. 'Consent in Emergency Research: New Regulations'. Emergency Medicine Journal, vol. 22, no. 10, Oct. 2005, pp. 683–85, https://doi.org/10.1136/emj.2005.024588. Cochrane Collaboration. Cochrane Handbook for Systematic Reviews of Interventions. Edited by Julian P. T. Higgins and Sally Green, Wiley-Blackwell, http://ezproxy.library.qmul.ac.uk/login?url=https://onlinelibrary.wiley.com/doi/book/10.100 2/9781119536604.

Cochrane Handbook for Systematic Reviews of Interventions | Cochrane Training. http://training.cochrane.org/handbook.

Costa, Matthew L., 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, vol. 319, no. 22, June 2018, https://doi.org/10.1001/jama.2018.6452.

Data Protection: The Data Protection Act - GOV.UK. https://www.gov.uk/data-protection/the-data-protection-act.

Dixon-Woods, Mary, et al. 'Ten Challenges in Improving Quality in Healthcare: Lessons from the Health Foundation's Programme Evaluations and Relevant Literature: Table 1'. BMJ Quality & Safety, vol. 21, no. 10, Oct. 2012, pp. 876–84, https://doi.org/10.1136/bmjgs-2011-000760.

Doctors' Use of Social Media (2013). http://www.gmc-uk.org/guidance/ethical_guidance/21186.asp.

Does More Intensive Treatment of Acute Myocardial Infarction in the Elderly Reduce Mortality? Analysis Using Instrumental Variables. - PubMed - NCBI. https://www.ncbi.nlm.nih.gov/pubmed/8078163.

EMCrit Blog - Emergency Department Critical Care & Resuscitation. https://emcrit.org/.

Fowler, A. J., et al. 'Meta-Analysis of the Association between Preoperative Anaemia and Mortality after Surgery'. British Journal of Surgery, vol. 102, no. 11, Oct. 2015, pp. 1314–24, https://doi.org/10.1002/bjs.9861.

Gardner, M. J., et al. Statistics with Confidence: Confidence Intervals and Statistical Guidelines. British Medical Journal, 1989, https://ebookcentral.proguest.com/lib/gmul-ebooks/detail.action?docID=1813669.

Glasziou, Paul, et al. 'Reducing Waste from Incomplete or Unusable Reports of Biomedical Research'. The Lancet, vol. 383, no. 9913, Jan. 2014, pp. 267–76, https://doi.org/10.1016/S0140-6736(13)62228-X.

Gosall, Narinder Kaur, and Gurpal Singh Gosall. The Doctor's Guide to Critical Appraisal. Fourth edition, PasTest, 2015.

---. The Doctor's Guide to Critical Appraisal. Fourth edition, PasTest, 2015.

Greenhalgh, T., et al. 'Evidence Based Medicine: A Movement in Crisis?' BMJ, vol. 348, no. jun13 4, June 2014, pp. g3725-g3725, https://doi.org/10.1136/bmj.g3725.

Grimes, David A., and Kenneth F. Schulz. 'An Overview of Clinical Research: The Lay of the Land'. The Lancet, vol. 359, no. 9300, Jan. 2002, pp. 57-61, https://doi.org/10.1016/S0140-6736(02)07283-5.

Harris, M. Medical Statistics Made Easy. https://ebookcentral.proguest.com/lib/gmul-ebooks/detail.action?docID=183415.

Haynes, R. Brian. Clinical Epidemiology: How to Do Clinical Practice Research. 3rd ed,

Lippincott Williams & Wilkins, 2006,

https://ebookcentral.proguest.com/lib/gmul-ebooks/detail.action?docID=3418215.

Health Research Authority - Protecting and Promoting the Interests of Patients and the Public in Health Research. http://www.hra.nhs.uk/.

Home - Getting the Best from IRAS.

https://www.myresearchproject.org.uk/ELearning/index.html.

Hosmer, David W., et al. Applied Logistic Regression. Third edition, vol. Wiley series in probability and statistics, Wiley, 2013,

https://ebookcentral.proquest.com/lib/gmul-ebooks/detail.action?docID=1138225.

Hulley, Stephen B. Designing Clinical Research: An Epidemiologic Approach. 2nd ed, Lippincott Williams & Wilkins, 2001,

https://ebookcentral.proguest.com/lib/gmul-ebooks/detail.action?docID=2031635.

ICU Podcasts - Intensive Care Network.

http://intensivecarenetwork.com/media/podcasts/icu-podcasts/.

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, vol. 340, no. 7748, 2010, pp. 698–702,

http://www.jstor.org/stable/40702665?pq-origsite=summon&seq=1#page_scan_tab_c ontents.

LITFL ☐ Life in the Fast Lane Medical Bloghttps://lifeinthefastlane.com/.

Livingston, Edward H. 'Introducing the JAMA Guide to Statistics and Methods'. JAMA, vol. 312, no. 1, July 2014, https://doi.org/10.1001/jama.2014.7991.

Making and Using Visual and Audio Recordings of Patients.

http://www.gmc-uk.org/guidance/ethical guidance/making audiovisual.asp.

MDU Guide for Consultants - Guide to Social Media - The MDU.

https://www.themdu.com/guidance-and-advice/guides/consultant-pack/guide-to-social-media.

Mental Capacity Act 2005. https://www.legislation.gov.uk/ukpga/2005/9/contents.

NUEM Blog. http://www.nuemblog.com/.

Ogrinc, Greg, et al. 'SQUIRE 2.0 (: Revised Publication Guidelines from a Detailed Consensus Process: Table 1'. BMJ Quality & Safety, vol. 25, no. 12, Dec. 2016, pp. 986–92, https://doi.org/10.1136/bmjqs-2015-004411.

Perla, R. J., et al. 'The Run Chart: A Simple Analytical Tool for Learning from Variation in Healthcare Processes'. BMJ Quality & Safety, vol. 20, no. 1, Jan. 2011, pp. 46-51, https://doi.org/10.1136/bmjqs.2009.037895.

Petrie, Aviva, and Caroline Sabin. Medical Statistics at a Glance. Wiley-Blackwell, 2013, http://web.b.ebscohost.com.ezproxy.library.qmul.ac.uk/ehost/detail/detail?vid=0&sid

=48f37c11-e2e1-48e2-9e10-7e31fae47a8f%40sessionmgr103&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=2206759&db=nlebk.

Planning and Improving Research - Health Research AuthorityHRA Health Research Authority. https://www.hra.nhs.uk/planning-and-improving-research/.

Prehospital and Retrieval Medicine - THE PHARM Dedicated to the Memory of Dr John Hinds . https://prehospitalmed.com/.

Pulmcrit - EMCrit. https://emcrit.org/category/pulmcrit/.

RDS London - Research Design Service. https://www.rds-london.nihr.ac.uk/.

Read An Introduction to Medical Statistics at VLeBooks.Com.

https://www-vlebooks-com.ezproxy.library.qmul.ac.uk/Vleweb/Product/Index/572973?page =0.

Read: How to Read a Paper.

 $http://ezproxy.library.qmul.ac.uk/login?url=http://www.vlebooks.com/vleweb/product/openreader?id=QMUL\&isbn=9781118801116\&uid=^u.$

Research Governance Framework for Health and Social Care: Second Edition - GOV.UK. https://www.gov.uk/government/publications/research-governance-framework-for-health-and-social-care-second-edition.

Research Governance Frameworks - Health Research Authority.

http://www.hra.nhs.uk/resources/research-legislation-and-governance/research-governance-frameworks/.

Robin Harbour and Juliet Miller. 'A New System For Grading Recommendations In Evidence Based Guidelines'. BMJ: British Medical Journal, vol. 323, no. 7308, 2001, pp. 334–36, http://www.jstor.org/stable/25467609?pq-origsite=summon&seq=1#page_scan_tab_c ontents

Rothman, Kenneth J., et al. Modern Epidemiology. 3rd ed., Thoroughly rev. and Updated, Wolters Kluwer Health/Lippincott Williams & Wilkins, 2008.

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, vol. 365, no. 9453, 2005, pp. 82–93,

https://www-sciencedirect-com.ezproxy.library.qmul.ac.uk/journal/the-lancet/vol/365/issue/9453.

Sinclair, H. Louise, and Peter JD Andrews. 'Bench-to-Bedside Review: Hypothermia in Traumatic Brain Injury'. Critical Care, vol. 14, no. 1, 2010, https://doi.org/10.1186/cc8220.

STARD Initiative. http://ibooked.no/stard-statement.html.

Statistics Notes | The BMI. http://www.bmj.com/specialties/statistics-notes.

St.Emlyn's - Emergency Medicine #FOAMed. http://stemlynsblog.org/.

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. https://www.journalslibrary.nihr.ac.uk/hta/hta17100/#/abstract.

Thomas, Stephen H., et al. 'Variation Between Physicians and Mid-Level Providers in Opioid Treatment for Musculoskeletal Pain in the Emergency Department'. The Journal of Emergency Medicine, vol. 49, no. 4, Oct. 2015, pp. 415–23, https://doi.org/10.1016/j.jemermed.2015.05.036.

Toxbase Welcome. https://www.toxbase.org/.

van Wely, M. 'The Good, the Bad and the Ugly: Meta-Analyses'. Human Reproduction, vol. 29, no. 8, Aug. 2014, pp. 1622–26, https://doi.org/10.1093/humrep/deu127.