

The Hierarchy of Evidence

The Hierarchy of evidence is based on summaries from the National Health and Medical Research Council (2009), the Oxford Centre for Evidence-based Medicine Levels of Evidence (2011) and Melynyk and Fineout-Overholt (2011).

- I Evidence obtained from a systematic review of all relevant randomised control trials.
- II Evidence obtained from at least one well designed randomised control trial.
- III Evidence obtained from well-designed controlled trials without randomisation.
- IV Evidence obtained from well designed cohort studies, case control studies, interrupted time series with a control group, historically controlled studies, interrupted time series without a control group or with case- series
- V Evidence obtained from systematic reviews of descriptive and qualitative studies
- VI Evidence obtained from single descriptive and qualitative studies
- VII Expert opinion from clinicians, authorities and/or reports of expert committees or based on physiology

Melynyk, B. & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing & healthcare: A guide to best practice (2nd ed.)*. Philadelphia: Wolters Kluwer, Lippincott Williams & Wilkins.

National Health and Medical Research Council (2009). *NHMRC levels of evidence and grades for recommendations for developers of guidelines* (2009). Australian Government: NHMRC.
http://www.nhmrc.gov.au/files_nhmrc/file/guidelines/evidence_statement_form.pdf

OCEBM Levels of Evidence Working Group Oxford (2011). *The Oxford 2011 Levels of Evidence*. Oxford Centre for Evidence-Based Medicine. <http://www.cebm.net/index.aspx?o=1025>

| Reference (include title, author, journal title, year of publication, volume and issue, pages) | Evidence level (I-VII) | Key findings, outcomes or recommendations |
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| Walker J. (2007) Patient preparation for safe removal of surgical drains... art & science clinical skills: 12. Nursing Standard 21(49) 39- 41. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed July 29, 2013. | VII | General overview of nursing management and removal of drain tubes as established in published literature |
| Tanaka K, Kutamoto T, Nojiri K, Takeda K, Endo I. (2013) The effectiveness and appropriate management of abdominal drains in patients undergoing elective liver resection: a retrospective analysis and prospective case series. Surgery Today, 43(4), 372-80. Epub 2012 Jul 14. | IV | Ascending infections can be avoided by early drain tube removal |
| Bharathan R, Dexter S & Hanson M. (2009). Laparoscopic retrieval of retained Redivac drain fragment. Journal of Obstetrics and Gynaecology, 29(3), 263-264 | VI | Case study demonstrating the effectiveness of post drain removal xray to identify drain fragment, this then resulted in successful removal of fragment |
| Durai R, Mownah A & Ng PCH (2009). Use of drains in surgery: a review. Journal of Perioperative Practice, 19(6), 180-186 | V | A peer reviewed literature review of drains in surgical situations. Definition and uses of drains |
| Havey R, Herriman E & O'Brien D. (2013) Guarding the gut: early mobility after abdominal surgery. Critical Care Nursing Quarterly, 36(1), 63-72. | VII | Importance of mobilizing with a drain, process on how to mobilize patient with a drain |
| Durai R & Ng P. C. H. (2010). Surgical vacuum drains: Types, uses, and complications. AORN Journal, 91(2), 266-71; quiz 272-4. doi:http://dx.doi.org/10.1016/j.aorn.2009.09.024 | VII | Overview of drain management, including movement, removal and complications |

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| Pagoti R, Arshad I & Schneider C. (2008). Stuck redivac drain: to open or not to open? A case report. Australian and New Zealand Journal of Obstetrics and Gynaecology, 48(2), 223-224. | VII | Case report detailing complications of a Redivac insertion |
| Avery S (2000). Insertion and Management of Chest Drains. Nursing Times Vol 96, Issue 37, pg 3. | VII | Literature including drain insertion, drainage monitoring, complications and removal of chest drain |
| Critical Care Practitioner (2019). Chest drains. Learning resources. Available from https://www.criticalcarepractitioner.co.uk/chest-drains/ . Accessed 03/10/2018. | VII | Overview of chest drain management, care and removal of drain |
| Imm N (2015). Surgical Drains-Indications, Management and Removal. Available from: https://patient.info/doctor/surgical-drains-indications-management-and-removal . Accessed 04/10/2018. | VII | Based on research evidence and written by medical professionals including indications, management and removal of surgical drains |