

Quarantining patients prior to elective surgery during COVID-19

An Evidence Snapshot brokered by the Sax Institute for the Australian Commission on Safety and Quality in Health Care.

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This report was prepared by: Gabriel Moore, Sian Rudge and Brydie Jameson.

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Enquiries regarding this report may be directed to the:

Principal Analyst
Knowledge Exchange Program
Sax Institute
www.saxinstitute.org.au
knowledge.exchange@saxinstitute.org.au
Phone: +61 2 9188 9500

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Introduction

This Evidence Snapshot was commissioned by the Australian Commission on Safety and Quality in Health Care and prepared by the Sax Institute. Note that it was completed within a day, so while a rigorous process for searching was followed it is possible that some peer reviewed or grey literature may have been missed.

Review question:

What is known about quarantining patients before elective surgery to reduce the transmission of COVID-19?

Method:

We searched peer reviewed databases, (Medline, PubMed); collections of COVID-19 related research (Oxford University Centre for Evidence Based Medicine, CDC, WHO, Cochrane, Elsevier, McMaster University Health Evidence; Cochrane Collaboration) as well as relevant government agency and medical colleges or organisations based in Australia, US, Canada, UK, and New Zealand. We reviewed the title and abstracts of 497 peer reviewed papers plus a grey literature search. The search was undertaken on 23 April 2020, and peer reviewed and grey literature was sourced by 4pm.

We report our results in Appendix 1, grouped as: Elective surgery: Position Statements and peer reviewed or other publications; Surgery; Quarantine; and Other.

Summary of findings:

- We found no peer reviewed or grey literature about quarantine prior to elective surgery to reduce the transmission of COVID-19
- We found one peer reviewed paper addressing the issue of recommencing elective surgery. This mentioned the installation of quarantine wards in hospitals prior to elective surgery. The abstract was in English and the article in Chinese only. The authors concluded that elective surgery could be safely introduced, but the level of evidence appears weak, based on the abstract.
- There were several studies commenting on the need to prioritise some elective surgeries where the consequences of no surgery were severe
- Some articles discussed the value and/or impact of quarantine in the community, but not as it related to elective surgery or its resumption

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- The majority of articles on surgery discussed mechanisms to avoid transmitting COVID-19 between clinicians and patients or between patients and communities
 - Position statements varied and are provided in Appendix 1.

Appendix 1: Selection of relevant materials

Group1: Elective surgery

Position statements

- **Federal Department of Health:** [Australian Health Protection Principal Committee \(AHPPC\) statement on restoration of elective surgery](#) 23 April 2020
- **Federal Department of Health:** [Government eases elective surgery restrictions](http://www.health.gov.au/news/government-eases-elective-surgery-restrictions) www.health.gov.au/news/government-eases-elective-surgery-restrictions 21 Apr. 2020: 19
- **Joint Statement US: Roadmap for Resuming Elective Surgery after COVID-19 Pandemic** American College of Surgeons, American Society of Anesthesiologists, Association of periOperative Registered Nurses, American Hospital Association Statement on resuming elective surgery post Covid19 from US. <https://www.facs.org/covid-19/clinical-guidance/roadmap-elective-surgery>
- **American Hospital Association Roadmap from AHA, Others for Safely Resuming Elective Surgery as COVID-19 Curve Flattens** <https://www.aha.org/standardsguidelines/2020-04-17-roadmap-aha-others-safely-resuming-elective-surgery-covid-19-curve>
- **American College of surgeons: Local resumption of elective surgery guidance** <https://www.facs.org/covid-19/clinical-guidance/resuming-elective-surgery>
- **New Zealand** is preparing moving from alert COVID related Alert Level 4 to Alert Level 3 for health and disability services <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-current-situation/health-and-disability-services-alert-level-3#factsheet>. Some planned care, including elective surgery and radiology, will be provided.
- **England:** Covid-19: all non-urgent elective surgery is suspended for at least three months in England. BMJ 2020; 368 doi: <https://doi.org/10.1136/bmj.m1106> (Published 18 March 2020)
Cite this as: BMJ 2020;368:m1106

Peer reviewed articles and/or commentary

- **[Management strategy for the resumption of regular diagnosis and treatment in gastrointestinal surgery department during the outbreak of coronavirus disease 2019 (COVID-19)]**

Zhen, L.; Lin, T.; Zhao, M. L.; Chen, H.; Chen, T.; Guo, W. H.; Zhao, L. Y.; Liu, H.; Hu, Y. F.; Yu, J.; Li, G. X..

Zhonghua wei chang wai ke za zhi = Chinese journal of gastrointestinal surgery; 23(4):321-326, 2020. Article | COVIDWHO | ID: covidwho-88634

Article in Chinese, abstract in English

Extract from the abstract: The four major measures of strengthening pre-hospital screening, perioperative prevention and control, medical staff protection, and ward management were adopted. These main measures included: the strict implementation of the appointment system and triage system before admission; the conduction of epidemiological and preliminary screening of viral nucleic acids; the chest CT examination during the perioperative period to re-screen COVID-19; the reduction of the risk of droplets and aerosol transmission; the minimally invasive surgery combined with enhanced recovery program in order to reduce patient's susceptibility and shorten the length of postoperative hospital stay; the reinforcement of specific infection control training for medical staff; the strict implementation of hierarchical protection; the establishment of gastrointestinal surgery prevention and control system; the rehearsal of emergency exercise; the installation of quarantine wards; the screening and management of family care-givers; the strict disinfection of environment and materials. Our preliminary practice shows that following the work guidelines issued by the Guangdong Province COVID-19 Prevention and Control Office and adopting precise management strategies in combination with the specific clinical features of gastrointestinal surgery, it is possible to safely resume regular care for the patients and comply to epidemic control at the same time.

- Prevention and control strategies for emergency, limited-term, and elective operations in pediatric surgery during the epidemic period of COVID-19. Tang D.; Tou J.; Wang J.; Chen, Q.; Wang, W.; Huang, J.; Zhao, H.; Wei, J.; Xu, Z.; Zhao, D.; Fu, J.; Shu, Q.. World Journal of Pediatric Surgery ; 3(1), 2020.
- How to risk-stratify elective surgery during the COVID-19 pandemic? Stahel, Philip F. Patient Safety in Surgery ; 14(1):08-Aug, 2020. Article | COVIDWHO | ID: covidwho-23906
- Economic Recovery Following the COVID-19 Pandemic: Resuming Elective Orthopaedic Surgery and Total Joint Arthroplasty O'Connor, Casey M.; Anoushiravani, Afshin A.; DiCaprio, Matthew R.; Healy, William L.; Iorio, Richard. The Journal of Arthroplasty; 2020.

Group 2 Surgery

- **Royal Australasian College of Surgeons.** RACS guidelines for the management of surgical patients during the COVID-19 pandemic. <https://umbraco.surgeons.org/media/5137/racs-guidelines-for-the-management-of-surgical-patients-during-the-covid-19-pandemic.pdf>
- Surgery during the COVID-19 pandemic: A comprehensive overview and perioperative care, The American Journal of Surgery, <https://doi.org/10.1016/j.amjsurg.2020.04.018> Al-Balas, Mahmoud; Al-Balas, Hasan Ibrahim; Al-Balas, Hamzeh.

- European Society of Trauma and Emergency Surgery (ESTES) recommendations for trauma and emergency surgery preparation during times of COVID-19 infection
Coimbra, Raul; Edwards, Sara; Kurihara, Hayato; Bass, Gary Alan; Balogh, Zsolt J.; Tilsed, Jonathan; Faccincani, Roberto; Carlucci, Michele; Martínez Casas, Isidro; Gaarder, Christine; Tabuenca, Arnold; Coimbra, Bruno C.; Marzi, Ingo.
European Journal of Trauma and Emergency Surgery; 2020.
- How to handle elective surgeries and procedures during the covid-19 pandemic MARCH 22, 2020 Karen S. Sealander, Dana Dombey, Adam J. Rogers, Marika Miller, Sheila Madhani
- Oncologists and COVID-19 in Indonesia: What can we learn and must do? Bayu Brahma Indonesian Journal of Cancer 2020 Volume 14, issue 1, page 1
<https://doi.org/10.33371/ijoc.v14i1.728>
- A COVID-19 Patient Who Underwent Endonasal Endoscopic Pituitary Adenoma Resection: A Case Report. Zhu W; Huang X; Zhao H; Jiang X. Neurosurgery. 2020 Apr 17. UI: 32302399
- Response to COVID-19 by the surgical community. Eric Elster, Benjamin K. Potter, Kevin Chung. Surgery. 2020 Mar 31 doi: 10.1016/j.surg.2020.03.011 [Epub ahead of print]. PMID: PMC7163184
- Perspectives on Surgery in the time of COVID-19: Safety First. The Journal of Minimally Invasive Gynecology. <https://doi.org/10.1016/j.jmig.2020.04.003>. Recommendations for Metabolic and Bariatric Surgery
- During the COVID-19 Pandemic from IFSO <https://doi.org/10.1007/s11695-020-04578-1>
- Maxillofacial surgery and COVID-19, The Pandemic!! Journal of Maxillofacial and Oral Surgery <https://link.springer.com/article/10.1007%2Fs12663-020-01361-8>
- Clinical and Transmission Characteristics of Covid-19 — A Retrospective Study of 25 Cases from a Single Thoracic Surgery Department. Yang-Kai Li, Shu Peng, Le-Qun Li, Qi Wang, Wei Ping, Ni Zhang, Xiang-Ning Fu. Curr Med Sci. 2020 Mar 30 : 1–6. doi: 10.1007/s11596-020-2176-2 [Epub ahead of print]. PMID: PMC7104422
- Vascular surgery department adjustments in the era of the COVID-19 pandemic Ryan Gouveia e Melo, Luis Mendes Pedro. J Vasc Surg. 2020 Apr 17 doi: 10.1016/j.jvs.2020.04.017 [Epub ahead of print]. PMID: PMC7162791
- Editorial. Endonasal neurosurgery during the COVID-19 pandemic: the Singapore perspective. Yu Tung Lo, Neville Wei Yang Teo, Beng Ti Ang. J Neurosurg. 2020 Apr : 1–3. Published online 2020 Apr 17. doi: 10.3171/2020.4.JNS201036. PMID: PMC7164326
- Cancer Surgery and COVID19. The COVID19 Subcommittee of the O.R. Executive Committee at Memorial Sloan Kettering. Ann Surg Oncol. 2020 Apr 13 : 1–4. doi: 10.1245/s10434-020-08462-1 [Epub ahead of print]. PMID: PMC7153355

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- Maxillofacial surgery and COVID-19, The Pandemic !! Rishi Kumar Bali, Kirti Chaudhry J Maxillofac Oral Surg. 2020 Apr 11: 1–3. doi: 10.1007/s12663-020-01361-8 [Epub ahead of print]
 - The UIC COVID Coverage Protocol: A Technical Note for Pandemic Oral and Maxillofacial Surgery Call Coverage. Seth Ebben, Raza A. Hussain, Michael Miloro, Nicholas Callahan. J Oral Maxillofac Surg. 2020 Apr 10. doi: 10.1016/j.joms.2020.04.004 [Epub ahead of print]. PMID: PMC7151518
 - Editorial. A neurosurgery resident’s response to COVID-19: anything but routine. Bryan D. Choi. J Neurosurg. 2020 Apr: 1–2. Published online 2020 Apr 17. doi: 10.3171/2020.4. JNS201028. PMID: PMC7164324
 - European Society of Trauma and Emergency Surgery (ESTES) recommendations for trauma and emergency surgery preparation during times of COVID-19 infection [Coimbra, Raul; Edwards, Sara; Kurihara, Hayato; Bass, Gary Alan; Balogh, Zsolt J.; Tilsed, Jonathan; Faccincani, Roberto; Carlucci, Michele; Martínez Casas, Isidro; Gaarder, Christine; Tabuenca, Arnold; Coimbra, Bruno C.; Marzi, Ingo.](#) European Journal of Trauma and Emergency Surgery; 2020. Article | COVIDWHO | ID: covidwho-72258
 - Italian society of colorectal surgery recommendations for good clinical practice in colorectal surgery during the novel coronavirus pandemic. G. Gallo, M. La Torre, R. Pietroletti, F. Bianco, D. F. Altomare, S. Pucciarelli, G. Gagliardi, R. Perinotti. Tech Coloproctol. 2020 Apr 14: 1–5. doi: 10.1007/s10151-020-02209-6 [Epub ahead of print] PMID: PMC7154569
 - Response to COVID-19 by the surgical community. Eric Elster, Benjamin K. Potter, Kevin Chung. Surgery. 2020 Mar 31 doi: 10.1016/j.surg.2020.03.011 [Epub ahead of print]. PMID: PMC7163184
 - Editorial. COVID-19 and its impact on neurosurgery: our early experience in Singapore. Zhiquan Damian Lee, David Low Chyi Yeu, Beng Ti Ang, Wai Hoe Ng, Wan Tew Seow. J Neurosurg. 2020 Apr: 1–2. Published online 2020 Apr 17. doi: 10.3171/2020.4. JNS201026. PMID: PMC7164323
 - Bariatric Surgery in the Times of Corona. SK Tyagi, Rishi Singhal. Obes Surg. 2020 Apr 17:1. doi: 10.1007/s11695-020-04589-y [Epub ahead of print]. PMID: PMC7163346

Group 3 Quarantine

- [Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review](#)
- Is a 14-day quarantine effective against the spread of COVID-19? <https://www.cebm.net/covid-19/is-a-14-day-quarantine-effective-against-the-spread-of-covid-19/>

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- Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19) [https://www.who.int/publications-detail/considerations-for-quarantine-of-individuals-in-the-context-of-containment-for-coronavirus-disease-\(covid-19\)](https://www.who.int/publications-detail/considerations-for-quarantine-of-individuals-in-the-context-of-containment-for-coronavirus-disease-(covid-19))
 - What are the effects of quarantine plus other measures for controlling the spread of Covid-19? <https://www.cochranelibrary.com/cca/doi/10.1002/cca.3053/full>

Group 4 Other

- What clinical features or scoring system, if any, might best predict a benefit from hospital admission for patients with COVID-19? <https://www.cebm.net/covid-19/what-clinical-features-or-scoring-system-if-any-might-best-predict-a-benefit-from-hospital-admission-for-patients-with-covid-19/>
- How to reduce the likelihood of coronavirus-19 (CoV-19 or SARS-CoV-2) infection and lung inflammation mediated by IL-1. Conti P; Gallenga CE; Tete G; Caraffa A; Ronconi G; Younes A; Toniato E; Ross R; Kritas SK. Journal of Biological Regulators & Homeostatic Agents. 34(2), 2020 03 31. [Editorial] UI: 32228825
- COVID-19: Operational guidance for maintaining essential health services during an outbreak <https://www.who.int/publications-detail/covid-19-operational-guidance-for-maintaining-essential-health-services-during-an-outbreak>