

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Telemedicine Use in Pediatric Emergency Departments: Guidelines

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Authors: Thyna Vu, Hannah Loshak

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Research Question

What are the evidence-based guidelines regarding the use of telemedicine for pediatric patients in emergency departments or urgent care centres?

Key Findings

No evidence-based guidelines were identified regarding the use of telemedicine for pediatric patients in emergency departments or urgent care centres.

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE via OVID, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were telemedicine and emergency care or paediatrics. Search filters were applied to limit retrieval to guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2015 and November 27, 2020. Internet links were provided, where available.

Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. The Overall Summary of Findings was based on information available in the abstracts of selected publications. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available, and relevant recommendations were summarized.

Table 1: Selection Criteria

Population	People (ages 0 to 18 years) who present to the emergency department or urgent care centres for health care
Intervention	Virtual emergency department visits using synchronous video (with or without other technologies) where one or more health care providers deliver health care services to a patient.
Comparator	No comparator
Outcomes	Recommendations regarding direct-to-patient virtual visits, use in the context of the COVID-19 pandemic, etc.
Study Designs	Evidence-based guidelines

Results

No evidence-based guidelines were identified regarding the use of telemedicine for pediatric patients in emergency departments or urgent care centres.

References of potential interest that did not meet the inclusion criteria are provided in the appendix.

Overall Summary of Findings

No relevant evidence-based guidelines were found regarding the use of telemedicine for pediatric patients in emergency departments or urgent care centres; therefore, no summary can be provided.

References Summarized

Guidelines and Recommendations

No literature identified.

Appendix — Further Information

Previous CADTH Reports

1. Telemedicine for the treatment of urgent conditions: a review of clinical effectiveness, cost-effectiveness, and guidelines (*CADTH Rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2015: <https://cadth.ca/telemedicine-treatment-urgent-conditions-review-clinical-effectiveness-cost-effectiveness-and>. Accessed 2020 Dec 4.

Systematic Reviews

Alternative Outcomes – Clinical Outcomes

2. Pacific Northwest Evidence-based Practice Center, Totten AM, Hansen RN, et al. Telehealth for acute and chronic care consultations. (*Comparative effectiveness review no. 216*). Rockville (MD): Agency for Healthcare Research and Quality; 2019: <https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/cer-216-telehealth-final-report.pdf>. Accessed 2020 Dec 4.
See: Emergency Care Telehealth Specialist Consultations: Effectiveness in Improving Intermediate Outcomes (p. 65); Table 9. Emergency care telehealth specialty consultations: selected outcomes (p. 67-68, 72)
3. Mackintosh N, Terblanche M, Maharaj R, et al. Telemedicine with clinical decision support for critical care: a systematic review. *Syst Rev*. 2016;5(1):176.
[PubMed: PM27756376](https://pubmed.ncbi.nlm.nih.gov/27756376/)

Alternative Population – Not Specific to Emergency or Urgent Care

4. Sansom-Daly UM, Wakefield CE, McGill BC, Wilson HL, Patterson P. Consensus among international ethical guidelines for the provision of videoconferencing-based mental health treatments. *JMIR Ment Health*. 2016;3(2):e17.
[PubMed: PM27192931](https://pubmed.ncbi.nlm.nih.gov/27192931/)

Non-Randomized Studies

5. Brova M, Boggs KM, Zachrison KS, et al. Pediatric telemedicine use in United States emergency departments. *Acad Emerg Med*. 2018;25(12):1427-1432.
[PubMed: PM30307078](https://pubmed.ncbi.nlm.nih.gov/30307078/)

Guidelines and Recommendations

Unclear Methodology

6. American Academy of Pediatrics. Guidance on the necessary use of telehealth during the COVID-19 pandemic; 2020: <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/guidance-on-the-necessary-use-of-telehealth-during-the-covid-19-pandemic/>. Accessed 2020 Dec 4.
7. Saidinejad M, Paul A, Gausche-Hill M, et al. Consensus statement on urgent care centers and retail clinics in acute care of children. *Pediatr Emerg Care*. 2019;35(2):138-142.
[PubMed: PM30422946](https://pubmed.ncbi.nlm.nih.gov/30422946/)

8. American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Telepsychiatry, AACAP Committee on Quality Issues. Clinical update: telepsychiatry with children and adolescents. *J Am Acad Child Adolesc Psychiatry*. 2017;56(10):875-893.
[PubMed: PM28942810](#)
9. Myers K, Nelson EL, Rabinowitz T, et al. American Telemedicine Association practice guidelines for telemental health with children and adolescents. *Telemed J E Health*. 2017;23(10):779-804.
[PubMed: PM28930496](#)
See: Mental Health Emergencies with Youth (p. 795-796)
10. Operating procedures for pediatric telehealth. Washington (DC): American Telemedicine Association; 2017: https://www.aap.org/en-us/Documents/ATA_Pediatric_Telehealth.pdf. Accessed 2020 Dec 4.
See: Informed Consent – Emergency Services (p.5); Patient Safety - #3 (p. 7); Parental/Legal Representative Presence - #1 (p. 7); Emergency Contingencies (p. 8); Mobile Devices – #1.4 (p.9); Presenters and Facilitators (ATA 2011) (p. 11)

Alternative Population – Not Specific to Emergency or Urgent Care

11. Kemery DC, Goldschmidt K. Can you see me? Can you hear me? Best practices for videoconference-enhanced telemedicine visits for children. *J Pediatr Nurs*. 2020;55:261-263.
[PubMed: PM32868175](#)
12. Legrand M, Barraud D, Constant I, et al. Management of severe thermal burns in the acute phase in adults and children. *Anaesth Crit Care Pain Med*. 2020;39(2):253-267.
[PubMed: PM32147581](#)
13. Liu E, Smyth RL, Luo Z, et al. Rapid advice guidelines for management of children with COVID-19. *Ann Transl Med*. 2020;8(10):617.
[PubMed: PM32566554](#)
See: Figure 1 – Screening and management of children with high risk of COVID-19; Clinical question 2: how should children who have had contact with COVID-19 patients be managed?

Alternative Population – Not Specific to Pediatric Populations

14. Gough F, Budhrani S, Cohn E, et al. ATA practice guidelines for live, on-demand primary and urgent care. *Telemed J E Health*. 2015;21(3):233-241.
[PubMed: PM25658882](#)
See: Special Populations – Pediatric (p. 238).

Alternative Outcome – No Recommendations Specific to Telemedicine

15. Frankel L, Hsu B, Yeh T, et al. Criteria for critical care infants and children: PICU admission, discharge, and triage practice statement and levels of care guidance. pediatric critical care medicine. *Pediatr Crit Care Med*. 2019;20(9):857-887.
[PubMed: PM31483379](#)
See: Equipment and Technology

Qualitative Studies

16. Ray KN, Demirci JR, Bogen DL, Mehrotra A, Miller E. Optimizing telehealth strategies for subspecialty care: recommendations from rural pediatricians. *Telemed J E Health*. 2015;21(8):622-629.
[PubMed: PM25919585](#)

Review Articles

17. Hilty DM, Shoemaker EZ, Myers K, Snowdy CE, Yellowlees PM, Yager J. Need for and steps toward a clinical guideline for the telemental healthcare of children and adolescents. *J Child Adolesc Psychopharmacol*. 2016;26(3):283-295.
[PubMed: PM26871510](#)