

CADTH Reference List

# Physical Restraints for Adults With Mental Health Conditions or Dementia in Inpatient and Correctional Settings

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## Key Messages

- No evidence was identified about the clinical effectiveness of physical restraints versus no physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings.
- No evidence was identified about the clinical effectiveness of physical restraints versus alternative restraints for adults with mental health conditions or dementia in inpatient and correctional settings.
- No relevant evidence-based guidelines were identified about the use of physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings.

## Research Questions

1. What is the clinical effectiveness of physical restraints versus no physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings?
2. What is the clinical effectiveness of physical restraints versus alternative restraints for adults with mental health conditions or dementia in inpatient and correctional settings?
3. What are the evidence-based guidelines regarding the use of physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings?

## Methods

### Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, PsycInfo, the Cochrane Database of Systematic Reviews, the international HTA database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were physical restraints, mental health, and inpatient or correctional settings. A secondary search for guidelines was performed, using a CADTH-developed guidelines search filter and the concepts of physical restraints and inpatient or correctional settings. The searches were completed on May 10, 2022 and limited to English-language documents published since January 1, 2017. 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 available, and relevant recommendations were summarized.

**Table 1: Selection Criteria**

Criteria	Description
<b>Population</b>	Adults with mental health conditions (e.g., bipolar disorder, schizophrenia) or dementia in inpatient or correctional settings
<b>Intervention</b>	Physical restraints (e.g., waist belts, mechanical restraint devices, vests, beds or chairs with restraints, or locking tabletops)
<b>Comparator</b>	Q1: No physical restraints Q2: Alternative restraints (e.g., chemical restraints, environmental restraints [i.e., clinical seclusion]) Q3: Not applicable
<b>Outcomes</b>	Q1 and Q2: Clinical effectiveness (e.g., falls, pressure ulcers, bodily injury, aggression, circulatory complications, functional status, satisfaction with care, safety [e.g., adverse events]) Q3: Recommendations regarding best practices (e.g., appropriate populations or clinical settings, guidance on which types of physical restraints should or should not be used)
<b>Study designs</b>	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines

## Results

No relevant health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified about the clinical effectiveness of physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings. Additionally, no relevant evidence-based guidelines were identified about the physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings.

References of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

## Overall Summary of Findings

No relevant studies were found regarding the clinical effectiveness of physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings. Additionally, no evidence-based guidelines were found regarding the use of physical restraints for adults with mental health conditions or dementia in inpatient and correctional settings; therefore, no summary can be provided.

## References

### Health Technology Assessments

No literature identified.

### Systematic Reviews

No literature identified.

### Randomized Controlled Trials

No literature identified.

### Non-Randomized Studies

No literature identified.

### Guidelines and Recommendations

No literature identified.

## Appendix 1: References of Potential Interest

### Previous CADTH Reports

1. Restraints for children and adolescents with mental health conditions in inpatient settings. (*CADTH reference list*). Ottawa(ON): CADTH; 2022 Apr: <https://www.cadth.ca/sites/default/files/pdf/htis/2022/RA1211%20Mental%20Health%20Inpatient%20Restraints%20Final.pdf>. Accessed 2022 May 18.
2. Physical restraints for use in long-term care settings: clinical effectiveness and guidelines. (*CADTH rapid response report: summary of abstracts*). Ottawa(ON): CADTH; 2020 Feb. <https://www.cadth.ca/sites/default/files/pdf/htis/2020/RB1453%20Restraints%20in%20LTC%20Final.pdf>. Accessed 2022 May 18.

### Systematic Reviews

#### *Population Age Not Specified*

3. Gleerup CS, Ostergaard SD, Hjulser RS. Seclusion versus mechanical restraint in psychiatry: a systematic review. *Acta Neuropsychiatr*. Oct 2019;31(5):237-245. [PubMed](#)

#### *Mixed Intervention*

4. Chieze M, Hurst S, Kaiser S, Sentissi O. Effects of seclusion and restraint in adult psychiatry: a systematic review. *Front Psychiatry*. 2019;10:491. [PubMed](#)
5. Kersting XA, Hirsch S, Steinert T. Physical harm and death in the context of coercive measures in psychiatric patients: a systematic review. *Front Psychiatry*. 2019;10:400. [PubMed](#)

### Non-Randomized Studies – Population Age Not Specified

6. Funayama M, Takata T. Psychiatric inpatients subjected to physical restraint have a higher risk of deep vein thrombosis and aspiration pneumonia. *Gen Hosp Psychiatry*. 2020;62:1-5. [PubMed](#)
7. Guzman-Parra J, Aguilera-Serrano C, Garcia-Sanchez JA, et al. Experience coercion, post-traumatic stress, and satisfaction with treatment associated with different coercive measures during psychiatric hospitalization. *Int J Mental Health Nurs*. 2019;28(2):448-456. [PubMed](#)

### Guidelines and Recommendations

#### *Unclear Methodology; Population Age Not Specified*

8. Therapeutic restraints and seclusion. Oklahoma City(OK): Oklahoma Department of Corrections; 2021: <https://oklahoma.gov/content/dam/ok/en/doc/documents/policy/section-14/op140141.pdf>. Accessed 2022 May 18.  
See: General Guidelines, page 3-5
9. Raveesh BN, Lepping P. Restraint guidelines for mental health services in India. *Indian J Psychiatry*. 2019;61(Suppl 4):S698-S705. [PubMed](#)
10. Mechanical restraint in general psychiatry. Guidance leaflet. Paris(FR):Haute Autorité de Santé. 2017; [https://www.has-sante.fr/upload/docs/application/pdf/2017-06/dir204/guidance\\_leaflet\\_-\\_mechanical\\_restraint\\_in\\_general\\_psychiatry.pdf](https://www.has-sante.fr/upload/docs/application/pdf/2017-06/dir204/guidance_leaflet_-_mechanical_restraint_in_general_psychiatry.pdf). Accessed 2022 May 18.

#### *Quality and Position Statements*

11. Mental Health America. Position statement 24: seclusion and restraints. 2022; <https://www.mhanational.org/issues/position-statement-24-seclusion-and-restraints>. Accessed 2022 May 18.
12. American Psychiatric Nurses Association. APNA seclusion & restraint position paper. 2018; <https://www.apna.org/resources/apna-seclusion-restraint-position-paper/>. Accessed 2022 May 18.
13. National Institute for Health and Care Excellence. Violent and aggressive behaviours in people with mental health problems. (*Quality standard*). London(UK): NICE. 2017; <https://www.nice.org.uk/guidance/qs154/resources/violent-and-aggressive-behaviours-in-people-with-mental-health-problems-pdf-75545539974853>. Accessed 2022 May 18.  
See: Quality statement 3: Physical health during and after manual restraint, page 14
14. Health Quality Ontario. Behavioural symptoms of dementia: clinical guide. Quality Statement 8: mechanical restraint. <https://www.hqontario.ca/Evidence-to-Improve-Care/Quality-Standards/View-all-Quality-Standards/Behavioural-Symptoms-of-Dementia/Quality-Statement-8-Mechanical-Restraint>. Accessed 2022 May 18.

### Review Articles

15. Al-Maraira OA, Hayajneh FA. Use of restraint and seclusion in psychiatric settings: a literature review. *J Psychosoc Nurs Ment Health Serv*. 2019;57(4):32-39. [PubMed](#)
16. Masters KJ. Physical restraint: a historical review and current practice. *Psychiatr Ann*. 2017;47(1):52-55.

### Additional References

17. Alzheimer Society of Canada. Using restraints. Alzheimer Society of Canada. 2022; <https://alzheimer.ca/en/help-support/im-caring-person-living-dementia/ensuring-safety-security/using-restraints>. Accessed 2022 May 18.
18. Government of Victoria, Australia. Department of Health. Restrictive interventions: bodily restraint and seclusion. 2021; <https://www.health.vic.gov.au/practice-and-service-quality/restrictive-interventions-bodily-restraint-and-seclusion>. Accessed 2022 May 18.

19. Alberta Health Services. Restraints as a last resort toolkit. Information for health professionals. <https://www.albertahealthservices.ca/info/Page15702.aspx>. Accessed 2022 May 18.  
See: Specific Care Settings, Addiction and Mental Health