



Where's the Evidence?

Searching for Internal & External Evidence

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Objectives

- Use internal and external sources to find evidence summaries
- Find systematic reviews using Treadwell resources
- Conduct a database search to find primary evidence on an EBP question
- Save results to share with your teammates
- State how you can get help from Treadwell librarians

The Clinical Question:

P: Among mechanically ventilated patients in the Medical-Surgical ICU

I: does tape (I)

C: or commercial tube holders (C)

O: work better at securing endotracheal tubes (O)?

What are synonyms for your key concepts?

Examples:

- ICU
- Intensive care unit
- Intensive care units

- Cancer
- Carcinoma
- Neoplasms



What words should I use?

Communication Patterns in the Perioperative Environment During **Epic** Electronic Health Record System Implementation.

Authors: [Friend, Tynan; Jennings, Samantha; Levine, Wilton](#)

Affiliation: [Massachusetts General Hospital , 55 Fruit Street, WHT 400 Boston 02114 USA](#)

Source: [Journal of Medical Systems \(J MED SYST\), Feb2017; 41\(2\): 1-5. \(5p\)](#)

Publication Type: [Article](#)

Language: [English](#)

Major Subjects: [Patient Record Systems](#)
[Systems Implementation](#)
[Hospitals -- Massachusetts](#)

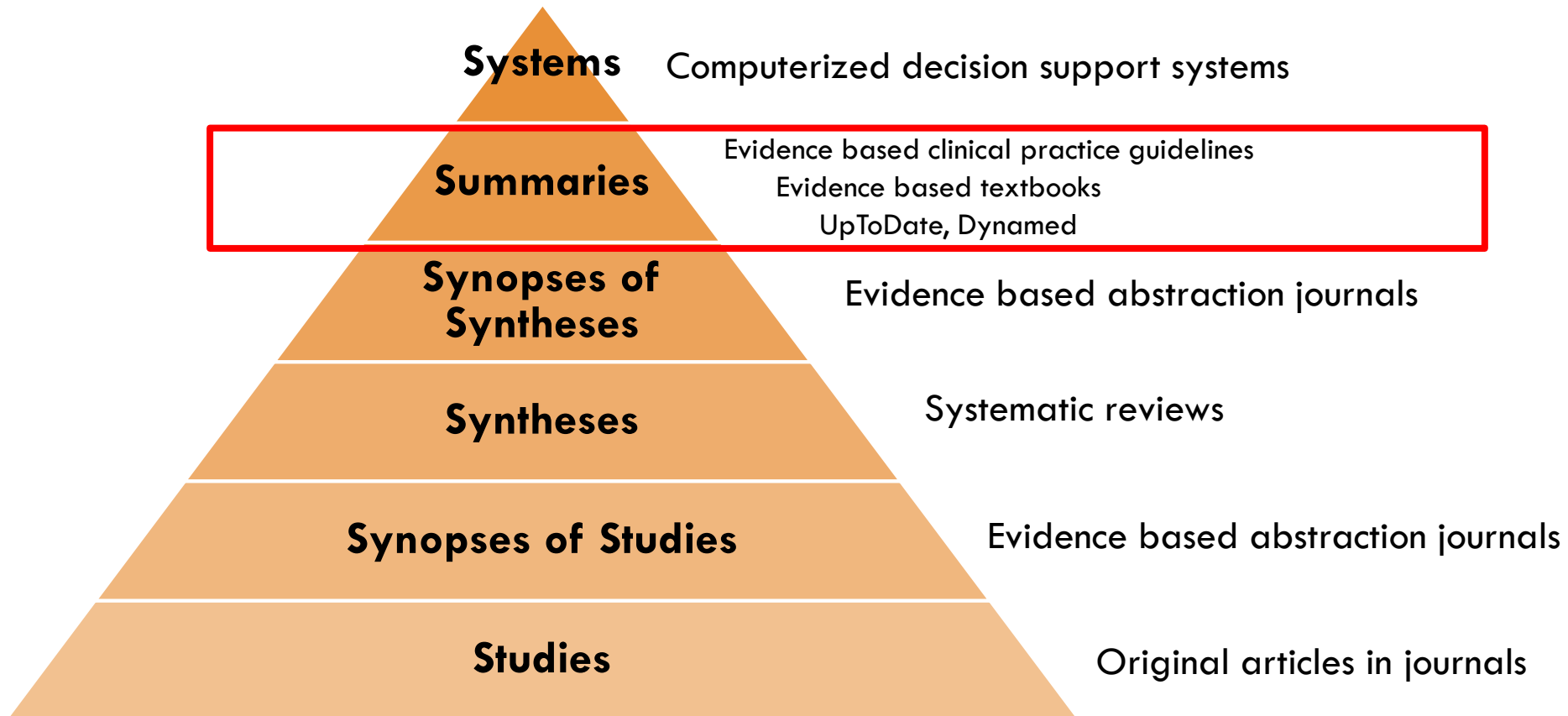
Minor Subjects: [Wireless Communications; Operating Room Information Systems; Massachusetts](#)

PICO keyword chart

Patient	Intervention	Comparison	Outcome
“Mechanically ventilated”	tape	holder*	“Endotracheal tub*”
“Mechanical ventilation”	tapes	device*	“ET tub*”
Ventilator*	taping	securements	ETT
ICU	knot*	securing	Intubat*
“Intensive care unit*”	adhesive*	stabiliz*	Extubat*
	securements	fixation	
	securing		
	stabiliz*		
	fixation		

Where Should I Start?

Examples of resources:



Search for Existing Standards & Guidelines

- Internal sources

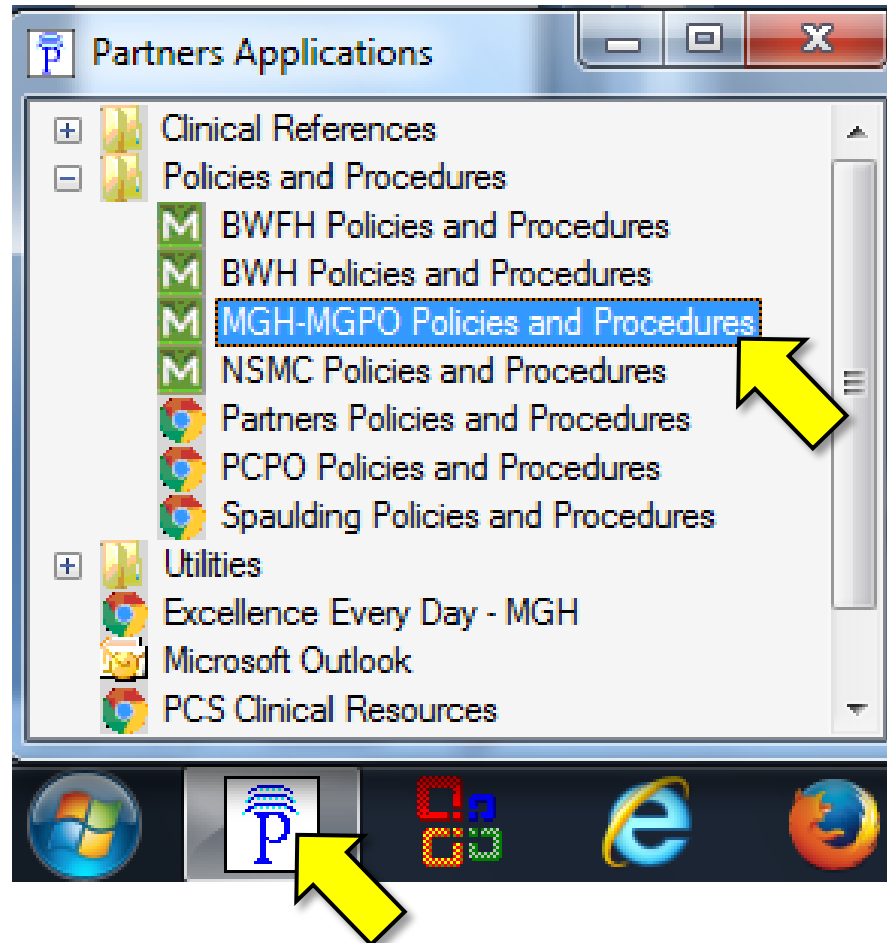
ellucid[®]

- External source examples

ECRIInstitute

AMERICAN
ASSOCIATION
of CRITICAL-CARE
NURSES

Internal Source: ellucid



External Source: guidelines.ecri.org

The screenshot shows the top navigation bar of the ECRI Institute website. The logo "ECRI Institute" is on the left, and the navigation menu includes "ABOUT US", "NEWS", "EVENTS", "CONTACT US", and a "LOG IN" button. Below the navigation is a dark blue banner for "Guidelines Trust™". The banner features a background of colorful, glowing lines and wireframe structures. The text "GUIDED BY RIGOR. GROUNDED IN TRUTH." is centered, with "GROUNDED IN TRUTH." in red. To the right, there are stylized line-art figures of people. At the bottom of the banner, there is a "Sign Up" button and a link for existing accounts: "Already have an ECRI Account? Please [click here](#)."



About Guidelines Trust

20+ years' experience providing current, evidence-based guidance.



Inclusion Criteria

How are guidelines included in the Trust?



TRUST Scorecard

How are guidelines assessed for Trustworthiness?

External source: eBooks

The screenshot displays the eTREADWELL website interface. At the top, the logo "eTREADWELL" is prominent, with "the Virtual Library for" partially visible to its right. Below the logo is a navigation bar with links for "Home", "Ask Us!", "Order Articles", "How Do I?", "Consultation", and "C". The main content area features the "MGH | OneSearch" header and the tagline "Find online books, articles and more... all in one place!". Two tabs are visible: "All Resources" and "Titles A-Z", with a yellow arrow pointing to the latter. A search box contains the text "aacn critical care" and a "Search" button, with a yellow arrow pointing to it. Below the search box are radio button options for "eJournals only", "eBooks only", and "All Titles", with the "All Titles" option selected. Two callout boxes with black borders and white text provide instructions: "1) Click 'Titles A-Z'" and "2) Click search".

eTREADWELL the Virtual Library for

Home Ask Us! Order Articles ? How Do I? Consultation C

MGH | OneSearch

Find online books, articles and more... all in one place!

All Resources **Titles A-Z** Search Tips

Search for eJournals and eBooks by title

Keyword aacn critical care Search

eJournals only
 eBooks only
 All Titles

1) Click "Titles A-Z"

2) Click search

External source: eBooks

Use of Commercially Available Endotracheal Tube Holder

A. Apply according to manufacturer's directions.

Use of Twill Tape

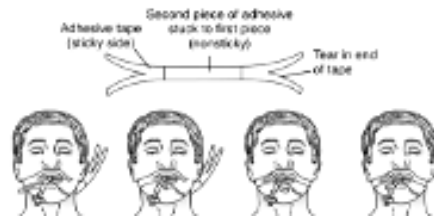
A. Double over a 2-ft length of twill tape; tie the tape around the tube, pulling the frayed ends of tape through the looped end; and tie where tube emerges from the lips.

B. Pull the tape ends in opposite directions around the patient's neck.

C. Tie the two ends of the tape at the side of the patient's neck securely.

Use of Adhesive Tape

A. Prepare tape as shown in [Fig. 2-10](#).



Next: Look for Systematic Reviews

eArticles only

@MGHTreadwell

Lets look for systematic reviews on our topic. Start by clicking "OVID."

Resources

AccessAnesthesiology	CINAHL Complete	ClinicalKey	DynaMed
eJournals & eBooks	eNeurosurgery	Harvard Medical Library	Mango Languages
MICROMEDEX	MEDLINE Complete	OVID	PubMed@MGH
PubMed@MGH/HMS	QUOSA	RefWorks	UpToDate
More Resources...			



Use Browzine to explore thousands of Treadwell-provided journals and create a personal bookshelf of favorite titles.



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PubMed@MGH/HMS	QUOSA	RefWorks	UpToDate
More Resources...			



Use Browzine to explore thousands of Treadwell-provided journals and create a personal bookshelf of favorite titles.



Select EBM Reviews - Cochrane Database of Systematic Reviews

Select Resource(s) to search:

▼ All Resources

- Ovid MEDLINE(R) 2013 to March Week 1 2017 i
- Medline 1996 to Present with Daily Update i
- Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE and Versions(R) 1946 to Present i
- Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations March 09, 2017 i
- Ovid MEDLINE(R) Epub Ahead of Print March 09, 2017 i
- Ovid MEDLINE(R) Versions i
- Ovid Nursing Database 1946 to March Week 1 2017 i
- PsycINFO 1967 to March Week 1 2017 i
- PsycINFO 1806 to 1966 i
- PsycTESTS 1910 to February 2017 i
- MGH Journals@Ovid i
- EBM Reviews - Cochrane Database of Systematic Reviews 2005 to March 8, 2017 i
- EBM Reviews - ACP Journal Club 1991 to February 2017 i
- EBM Reviews - Database of Abstracts of Reviews of Effects 4th Quarter 2016 i

OK

Example Cochrane Evidence Summary

Title: Methods for securing endotracheal tubes in newborn infants.

Source: Cochrane Database of Systematic Reviews. 7, 2014.

Abstract: Background

Securing the endotracheal tube is a common procedure in the neonatal intensive care unit. Adequate fixation of the tube is essential to ensure effective ventilation of the infant whilst minimising potential complications secondary to the intervention. Methods used to secure the endotracheal tube often vary between units and sometimes even between healthcare providers in the same nursery.

Objectives

To compare the different methods of securing the endotracheal tube in the ventilated neonate and their effects on the risk of accidental extubation and other potential complications that can result from an unstable endotracheal tube.

Search methods

A literature search of MEDLINE (from 1966 to June 2013), CINAHL (from 1982 to June 2013) and CENTRAL in The Cochrane Library was conducted to identify relevant trials to be analysed.

Selection criteria

All randomised and quasi-randomised controlled trials of infants who were intubated for mechanical ventilation in a neonatal intensive care nursery where methods of stabilising the endotracheal tube were being compared.

You can find reviews in CINAHL & PubMed/Ovid Medline as well



Searching: CINAHL Complete | Choose Databases

Suggest Subject Terms

Select a Field (optional) **Search** **Create Alert** **Clear** ?

AND Select a Field (optional)

AND Select a Field (optional)

[Basic Search](#) [Advanced Search](#) [Search History](#)

FYI: Most databases have a way to limit your search to reviews or systematic reviews

Search History/Alerts

[Print Search History](#) | [Retrieve Searches](#) | [Retrieve Alerts](#) | [Save Searches / Alerts](#)

Select / deselect all **Search with AND** **Search with OR** **Delete Searches** **Refresh Search Results**

Search ID#	Search Terms	Search Options	Actions
<input type="checkbox"/> S3	S1 AND S2	Search modes - Boolean/Phrase	View Results (4) View Details Edit
<input type="checkbox"/> S2	TI (tape OR tapes OR taping OR holder* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation OR device*) OR AB (tape OR tapes OR taping OR holder* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation OR device*)	Limiters - Publication Type: Systematic Review Search modes - Boolean/Phrase	View Results (1,416) View Details Edit
<input type="checkbox"/> S1	TI endotracheal tub*	Limiters - Publication Type: Systematic Review Search modes - Boolean/Phrase	View Results (9) View Details Edit

Refine Results

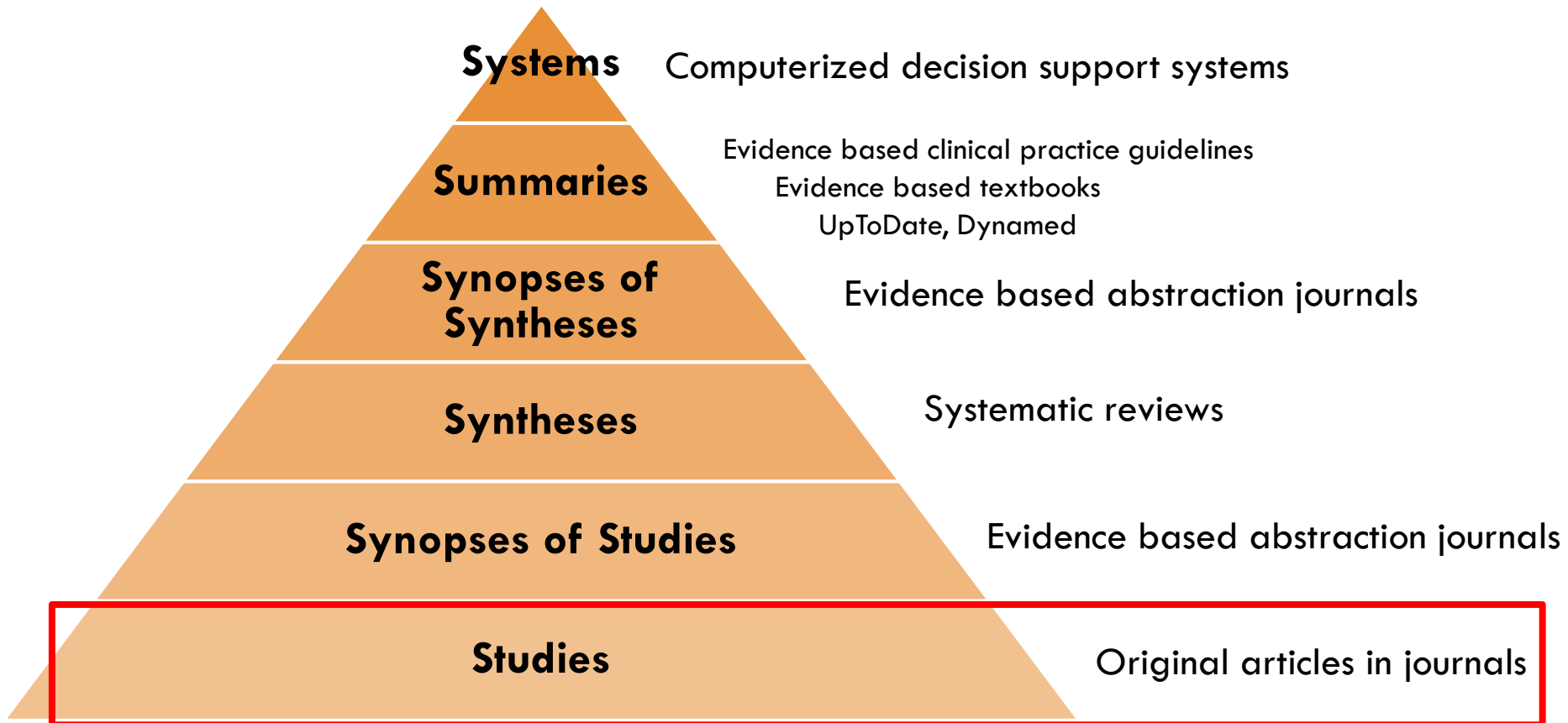
Search Results: 1 - 4 of 4

Relevance Page Options Share

1. [Securing the Endotracheal Tube With Adhesive Tape: An Integrative Literature Review.](#)

Time to Look for the Primary Literature

Examples of resources:



Next: Search for primary literature

To start your search for primary literature, choose a database. I'll choose CINAHL since it focuses on nursing and allied health.

Resources

AccessAnesthesiology	CINAHL Complete	ClinicalKey	DynaMed
eJournals & eBooks	eNeurosurgery	Harvard Medical Library	Mango Languages
MICROMEDEX	MEDLINE Complete	OVID	PubMed@MGH
PubMed@MGH/HMS	QUOSA	RefWorks	UpToDate
More Resources...			

I want articles about...

Patient	Intervention	Comparison	Outcome
“Mechanically ventilated”	tape	holder*	“Endotracheal tub*”
“Mechanical ventilation”	tapes	device*	“ET tub*”
Ventilator*	taping	securements	ETT
ICU	knot*	securing	Intubat*
“Intensive care unit*”	adhesive*	stabiliz*	Extubat*
	securements	fixation	
	securing		
	stabiliz*		
	fixation		

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ICU	knot*	securing	Intubat*
“Intensive care unit*”	adhesive*	stabiliz* OR stabilis*	Extubat*
	securements	fixation	
	securing		
	stabiliz* OR stabilis*		
	fixation		

AND

AND

AND

Would this citation with 3 of 4 concepts be helpful?

Carlson J, Mayrose J, Krause R, & Jehle, D. (2007). **Extubation** force: **Tape** versus endotracheal tube **holders**. *Annals of Emergency Medicine*, 50(6), 686-691.

STUDY OBJECTIVE: Tape is the standard method for securing endotracheal tubes to prevent extubation. This study examines the force required to extubate endotracheal tubes from cadavers with either tape or one of 4 commercially available endotracheal tube holders.

METHODS: Newly deceased, unembalmed cadavers were intubated with standard tracheal intubation techniques. The endotracheal tube was secured with either tape or one of 4 commercially available endotracheal tube holders. The endotracheal tube was then connected to a force-measuring device and pulled until the cuff was removed from the trachea. The largest force recorded on the device was then marked as the "extubation force" for that trial.

RESULTS: When tape was used to secure the endotracheal tube, it required a significantly larger force to extubate than 3 of 4 off-the-shelf endotracheal tube holders. Only the Thomas Tube Holder secured the endotracheal tube better than tape. **CONCLUSION:** Although the Thomas Tube Holder had the greatest holding force in this study, tape was shown to be the least expensive and outperformed 3 other commercially available devices used to secure endotracheal tubes.

If so..

Patient	Intervention	Comparison	Outcome
“Mechanically ventilated”	tape	holder*	“Endotracheal tub*”
“Mechanical ventilation”	tapes	device*	“ET tub*”
Ventilator*	taping	securements	ETT
ICU	knot*	securing	Intubat*
“Intensive care unit”	adhesive*	stabiliz* OR stabilis*	Extubat*
	securements	fixation	
	securing		
	stabiliz* OR stabilis*		
	fixation		

AND

AND

Type a concept into CINAHL to find subject headings

Searching: **CINAHL Complete** | [Choose Databases](#)

Suggest Subject Terms

tape

Select a Field (optional) ▼

Search

Type a concept into CINAHL to find subject headings

Results For: **tape**

Check off subject headings that interest you

↙ Check box to view subheadings.

Click linked term for tree view.

Explode (+)

Major Concept

Scope



Tape Use: [Tapes](#)


<input checked="" type="checkbox"/>	Tapes	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Athletic Tape	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Videorecording	<input type="checkbox"/>	<input type="checkbox"/>	

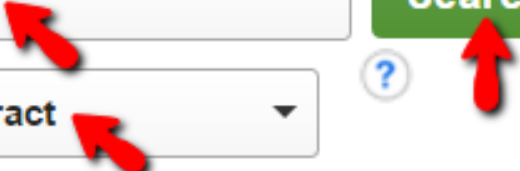
Then click "Search Database"

Search Database

Add your keywords, joining them with OR

Searching: **CINAHL Complete** | [Choose Databases](#)
 Suggest Subject Terms

tape OR tapes OR taping OR knot* OR adhi	TI Title	
OR tape OR tapes OR taping OR kno!	AB Abstract	



If I'm doing a systematic review, I'll look for the words in the title OR the abstract. This casts a broader search.





If I'm doing a literature review or a quick search, I may only look in the title.

Experiment and see how many results you get!

Combine subject headings and keywords with OR. Check off what you want to combine and click “Search with OR”

Search History/Alerts

[Print Search History](#) | [Retrieve Searches](#) | [Retrieve Alerts](#) | [Save Searches / Alerts](#)

<input checked="" type="checkbox"/> Select / deselect all				
Search with AND Search with OR Delete Searches				
	Search ID#	Search Terms	Search Options	Actio
<input checked="" type="checkbox"/>	S2	 TI (tape OR tapes OR taping OR knot* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation) OR AB (tape OR tapes OR taping OR knot* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation)	Search modes - Boolean/Phrase	
<input checked="" type="checkbox"/>	S1	 (MH "Tapes")	Search modes - Boolean/Phrase	











Tada! Here are 34,301 citations about tape and securing.
Repeat the process for the other concepts

Search History/Alerts



[Print Search History](#) | [Retrieve Searches](#) | [Retrieve Alerts](#) | [Save Searches / Alerts](#)

	Search ID#	Search Terms	Search Options	Actions
<input type="checkbox"/>	S3	S1 OR S2	Search modes - Boolean/Phrase	View Results (34,301)
<input type="checkbox"/>	S2	TI (tape OR tapes OR taping OR knot* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation) OR AB (tape OR tapes OR taping OR knot* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation)	Search modes - Boolean/Phrase	View Results (34,153)
<input type="checkbox"/>	S1	(MH "Tapes")	Search modes - Boolean/Phrase	View Results (313)

Then combine your concepts with AND

<input type="checkbox"/> Select / deselect all		Search with AND	Search with OR	Delete Searches
	Search ID#	Search Terms	Search Options	Actions
<input checked="" type="checkbox"/>	S7	 S5 OR S6	Search modes - Boolean/Phrase	 View Results (12,430)
<input type="checkbox"/>	S6	 TI ("endotracheal tube" OR "endotracheal tubes" OR "endotracheal tubing" OR ETT OR intubat* OR extubat*) OR AB ("endotracheal tube" OR "endotracheal tubes" OR "endotracheal tubing" OR ETT OR intubat* OR extubat*)	Search modes - Boolean/Phrase	 View Results (12,016)
<input type="checkbox"/>	S5	 (MH "Endotracheal Tubes")	Search modes - Boolean/Phrase	 View Results (901)
<input checked="" type="checkbox"/>	S4	 TI (holder* OR device* OR securements OR securing OR stabiliz* OR stabilis* OR fixation) OR AB (holder* OR device* OR securements OR securing OR stabiliz* OR stabilis* OR fixation)	Search modes - Boolean/Phrase	 View Results (69,615)
<input checked="" type="checkbox"/>	S3	 S1 OR S2	Search modes - Boolean/Phrase	 View Results (34,301)

Done!

Search ID#	Search Terms	Search Options	Actions
S8	 S3 AND S4 AND S7	Search modes - Boolean/Phrase	 View Results (354)

In this example, I ended up with 354 results. This is typical for a comprehensive search or a search for a systematic review.

If I were doing a quick search and wanted fewer results, I could have:


- Reduced the number of synonyms I included (such as securing or stabiliz*).
- Looked only in the title instead of the title and abstract.
- Applied limits: English only, a certain date range, an age range of patients I'm interested in

Save the results. Look for a “share” or “save” or “add to folder” option.

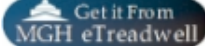

Date Newest ▾ Page Options ▾ [Share ▾](#)

Search Results: 1 - 50 of 354


1. **Nonobstetric anesthesia during cesarean section**

 (includes abstract) Heesen, Mi Anesthesiology, Jun2016; 29(3) PMID: 26859466

Academic Journal Purpose Of Review: Nonobstetric anesthesia is not only for the anesthetist. Over the last few years, randomized studies in this spe



 [MGH Full Text](#)  [Request via Treadwell](#)

2. **Comparison of the C-MAC video laryngoscope and a flexible fiberoptic scope for intubation of the cervical spine immobilization.**



 (includes abstract) Yumul, Roy Omar; Ternian, Alen; Tamman, Taizoon; Wong, Robert; Hernan Christine; Wender, Ronald H.; 7p. (journal article) ISSN: 0952-

Academic Journal

Add to folder :


-  Results (1-50)
-  Add search to folder: S3 AND S4 AND S7

Create an alert :


-  E-mail Alert
-  RSS Feed

Use Permalink :

Persistent link to search (copy & paste)



Export results :

-  E-mail a link to download exported results (up to 354)

Record your search strategy so you can replicate it if needed.

Database searched	CINAHL
Date searched	Jun-16
Number of results	354
S1	(MH "Tapes")
S2	TI (tape OR tapes OR taping OR knot* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation) OR AB (tape OR tapes OR taping OR knot* OR adhesive* OR securements OR securing OR stabiliz* OR stabilis* OR fixation)
S3	S1 OR S2
S4	TI (holder* OR device* OR securements OR securing OR stabiliz* OR stabilis* OR fixation) OR AB (holder* OR device* OR securements OR securing OR stabiliz* OR stabilis* OR fixation)
S5	(MH "Endotracheal Tubes")
S6	TI ("endotracheal tube" OR "endotracheal tubes" OR "endotracheal tubing" OR ETT OR intubat* OR extubat*) OR AB ("endotracheal tube" OR "endotracheal tubes" OR "endotracheal tubing" OR ETT OR intubat* OR extubat*)
S7	S5 OR S6
S8	S3 AND S4 AND S7

Repeat with your next database!

- View step by step videos of how to build searches in CINAHL, Ovid and PubMed

- Requirements:

Headphones or speakers to hear narration

Browser with Adobe Flash

- **CINAHL:** <http://screencast.com/t/yMMD8GCjTFk>
- **Ovid:** <http://screencast.com/t/Zejig6OMlrdI>
- **PubMed (simple):** <http://screencast.com/t/HQgH8CL2rX>
- **PubMed (advanced):** <http://screencast.com/t/46P8s0mKu>

You can use citation software to save your results and automatically generate bibliographies.

I made this bibliography with a few clicks!

Contact the library to learn more!

- Kiekkas, P., Aretha, D., Panteli, E., Baltopoulos, G. I., & Filos, K. S. (2013). Unplanned extubation in critically ill adults: Clinical review. *Nursing in Critical Care, 18*(3), 123-134.
- Kupas, D. F., Kauffman, K. F., & Wang, H. E. (2010). Effect of airway-securing method on prehospital endotracheal tube dislodgment. *Prehospital Emergency Care, 14*(1), 26-30 5p. doi:10.3109/10903120903144932
- Lai M, Inglis GD, Hose K, Jardine LA, & Davies, M. W. (2014). Methods for securing endotracheal tubes in newborn infants. *Cochrane Database of Systematic Reviews, 7*, 007805.
- Lovett PB, Flaxman A, Sturmman KM, & Bijur, P. (2006). The insecure airway: A comparison of knots and commercial devices for securing endotracheal tubes. *BMC Emergency Medicine, 6*, 7.
- Lucas da Silva PS, & de Carvalho, W. B. (2010). Unplanned extubation in pediatric critically ill patients: A systematic review and best practice recommendations. *Pediatric Critical Care Medicine, 11*(2), 287-294.
- Luria S, Vidan A, Nahtomi O, Khanin A, & Alcalay, M. (2001). Proposed technique for evaluation of endotracheal tube fixation and comparison of four fixation methods. *Military Medicine, 166*(1), 82-84.
- Mehta, N., Sharma, S., Laussen, P., Mehta, N. M., & Laussen, P. C. (2015). Unplanned extubation: Securing the tool of our trade. *Intensive Care Medicine, 41*(11), 1983-1985 3p. doi:10.1007/s00134-015-4000-1
- Murdoch E, & Holdgate, A. (2007). A comparison of tape-tying versus a tube-holding device for securing endotracheal tubes in adults. *Anaesthesia & Intensive Care, 35*(5), 730-735.

Let a Librarian Help You!

- [Ask Us!](#) to run a search. Click Ask Us on the Treadwell homepage
- Contact Lisa: lphilpotts@mgh.harvard.edu