

Enabling Access to Evidence-based Nursing Knowledge at the Point of Care with LEP Nursing and Thieme CNE: Pilot Linking Study

Glorianna Jagfeld¹, Marianne Pöllabauer¹, Thomas Moser², Jesko Kaltenbaek², Renate Ranegger¹

¹LEP AG, St. Gallen, Switzerland. ²Georg Thieme Verlag KG, Stuttgart, Germany

Abstract

Introduction: Nursing care is becoming increasingly complex, and research in nursing science is continuously producing new findings. Particularly new employees, employees who received some of their training in other countries, and float staff must quickly familiarise themselves with each ward's guidelines and ways of working. Given the high workload on many wards, efficient information access is paramount. This calls for innovative solutions of knowledge delivery integrated into the workflows of nurses at the point of care (process interoperability). Therefore, the knowledge provider Thieme Certified Nursing Education (CNE) and the nursing intervention classification provider LEP AG are exploring ways to enable accessing knowledge directly from the electronic patient documentation. Currently, more than 1000 healthcare services in Germany, Switzerland, and Austria use the LEP Nursing 3 nursing intervention classification for electronic care planning and documentation. The classification comprises around 600 case specific (e.g. Attending to a wound) and around 140 non-case-specific nursing interventions (e.g. Conducting a learning situation). CNE provides continuously updated, quality-controlled nursing knowledge on a multimedia online platform, including various content types such as web-based trainings, videos, a lexicon, nursing practice instructions, reference books and practice standards.

Project/Study Aims: The main goal of this project is to enable nurses at the point of care to access knowledge from the electronic patient documentation. As a first step, this pilot study aimed to determine the feasibility of linking LEP nursing interventions to Thieme CNE content that provides practical know-how for nurses at the point of care.

Methods: Nursing interventions (n=20) were purposefully selected from LEP Nursing 3.5.0 services with case assignment to represent a balanced set according to intervention frequency, duration, and experiences of previous linking projects. Two raters experienced with LEP (GJ, MP) first linked three interventions each to CNE content. They discussed to refine the process and then independently coded the remaining 17 interventions. Inter-rater agreement was calculated, and all discrepancies discussed to reach consensus.

Results: The raters found 29% of common links for 17 interventions. For 17 interventions, they identified seven suitable links on average, while they found no suitable CNE content for three interventions. A completeness check by CNE experts revealed no additional suitable content. The most frequent targets were book sections, particularly CNE's nursing handbook iCare online, videos, and lexicon entries. The coders considered 75% of the CNE links as pertaining to the intervention overall (e.g. general wound management) and 25% to special cases (e.g. change of wound dressing at the groin). Moreover, they assessed 25% of the CNE content as compact (less than one minute of reading or watching).

Conclusions: This pilot study demonstrated the feasibility of linking LEP nursing interventions to CNE nursing know-how. However, the wealth of CNE content and its often high level of detail as well as the generality of some LEP nursing interventions require additional constraints to provide concise targeted information at the point of care. The next step will be to develop these constraints for specific use cases in cooperation with a practice partner from a healthcare institution.

Keywords

Evidence-based nursing care, knowledge management, classifications of nursing interventions, process-integrated solutions, patient safety

Enabling access to evidence-based nursing knowledge at the point of care with LEP Nursing and Thieme CNE: pilot linking study

Glorianna Jagfeld¹, Marianne Pöllabauer¹, Thomas Moser², Jesko Kaltenbaek², Renate Ranegger¹

¹LEP AG, Switzerland, glorianna.jagfeld@lep.ch, lep.ch ²Georg Thieme Verlag KG, Germany, thomas.moser@thieme.de, cne.thieme.de



- LEP Nursing 3 nursing intervention classification
- 600 case-specific, 140 non-case-specific interventions
- Implemented in more than 1000 healthcare services in Germany, Switzerland, and Austria
- Available in German, English, French, Italian



Thieme



- Knowledge provider: Certified Nursing Education
- Continuously updated, quality-controlled knowledge
- Multimedia online platform
- Content types: web-based trainings, videos, lexicon, nursing practice instructions, reference books, etc.

Idea

Enable nurses at the point of care to access knowledge directly from the electronic patient documentation

Patient: Ms. Maier		
Case number: 123456		
Internal Medicine Ward 1		
Nursing interventions	Day 1	Day 2
Subcutaneously administering an injection	✓	✓
Inserting a urinary catheter	✓	
Administering an infusion with an additive		✓
Performing a full body wash		✓
Attending to a wound		✓

national guideline

video

lexicon

Fadenentfernung

Expertenstandard Pflege von Menschen mit chronischen Wunden

Fadenentfernung

Faden mit einer anatomischen –Pinzette anheben und direkt oberhalb der Haut einseitig durchtrennen (Abb. 86.1).

Faden vorsichtig herausziehen, auf einer Kompresse ablegen und überprüfen, ob er ganz entfernt wurde.

Vorgang wiederholen, bis alle Fäden der Wunde entfernt sind; sollen nur die Teilfäden entfernt werden, nur jeden 2. Faden ziehen.

Bei fortlaufenden Intrakutanähnten den Knoten am Fadenende abschneiden und den Fadenanfang mit der anatomischen Pinzette fassen; durch Drehen um die Pinzette den Faden aufwickeln und somit entfernen.

Wunde erneut desinfizieren und sterilen Wundverband bzw. Schnellverband anlegen.

Patienten evtl. beim Rücklagern bzw. Anziehen unterstützen und –Patientenbett wieder auf eine für ihn sichere Höhe bringen (–Sturzprophylaxe).

Pflegeintervention

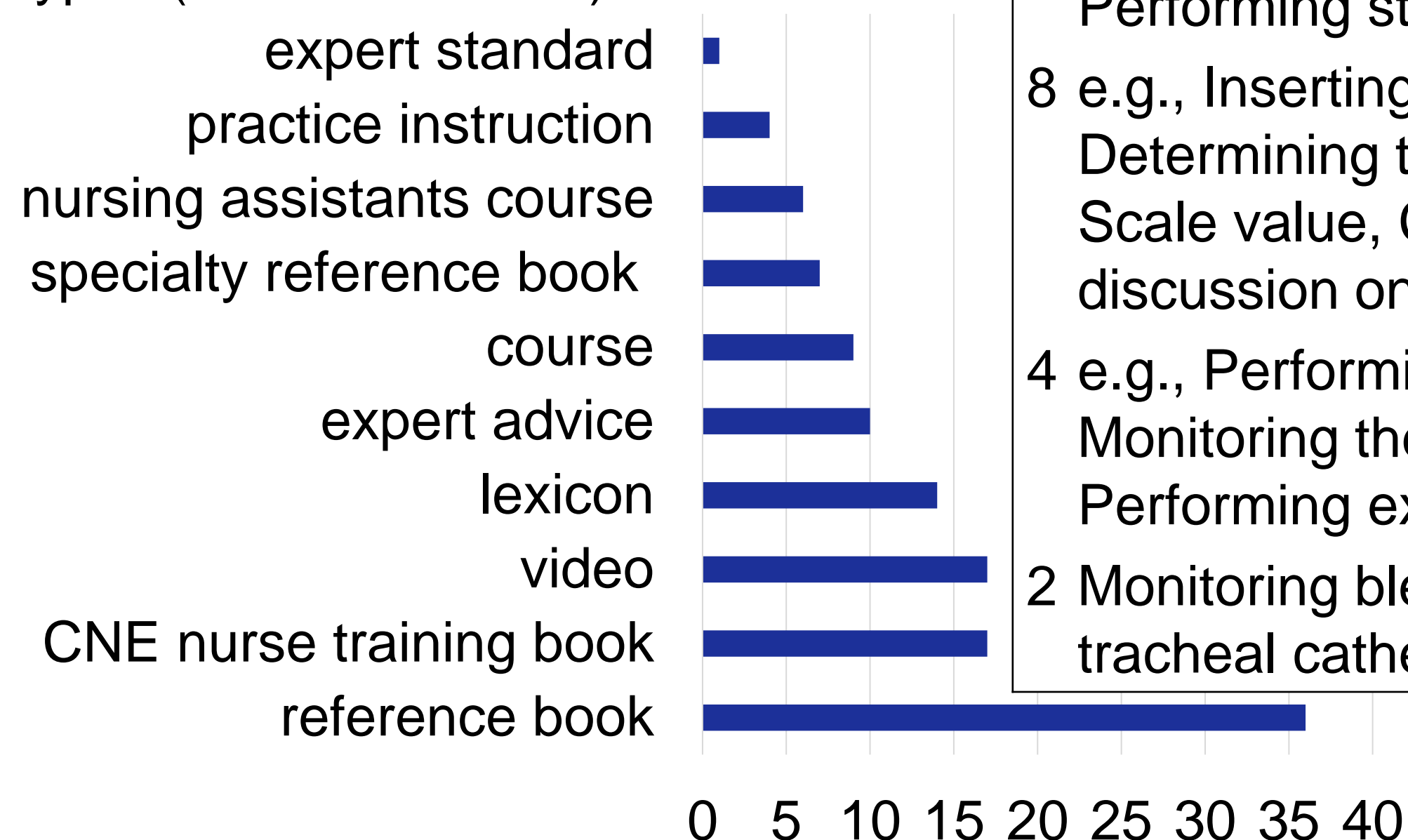
Aseptischer Verbandswechsel bei peripheren Verweilkanülen

Abb. 86.1 Faden mit Pinzette entfernen.

Pilot study

Results

Frequency of mapped CNE content types (123 links in total):



Agreement: 29% of links for 17 interventions after trial with 3 interventions

Number of CNE links per LEP intervention:

# LEP interventions	# CNE links
6 e.g., Attending to a wound, Performing stoma care	≥ 9
8 e.g., Inserting a urinary catheter, Determining the Glasgow Coma Scale value, Conducting a discussion on terminal care	5-8
4 e.g., Performing gait training, Monitoring the state of the uterus, Performing extubation	1-4
2 Monitoring bleeding, Performing tracheal catheter care	0

Methods

- Two independent raters linked 20 LEP nursing interventions to CNE content
- Heterogeneous interventions selected according to frequency, duration, previous mapping experiences
- Discussion to reach consensus
- Check by CNE content expert

Next Steps

Cooperation with healthcare institution: define use cases, implement pilot in the patient documentation, test usability