

Change documentation

European Nursing care Pathways – version 2.0 to version 3.3



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Preface

Since their establishment at the end of the 1980s, the European Nursing care Pathways (ENP) have undergone a multitude of structural as well as technical changes and further developments. New versions of ENP are released annually, which in turn bring a number of new developments and changes from different perspectives. From a content perspective, the continuous evidence-based development of ENP from version to version leads, among other things, to the addition of numerous new elements (such as entire practice guidelines or singular characteristics, etiologies, nursing outcomes, and/or nursing interventions), changes in the wording of existing elements (but by no means in the scope of meaning), or even the deactivation of elements that, for example, no longer correspond to the state of current expertise. Structural changes may include the addition of new classification elements in ENP. Examples of this are the definitions for all ENP nursing diagnoses, the development and implementation of which began in 2014, or the establishment of explanatory texts for various ENP items (e.g., foreign-language technical terms for characteristics or etiologies), which are implemented in the ENP book publication as a glossary and in the digital context as a so-called mouseover¹.

However, structural changes to ENP can also affect the level of the database relations or the database model, which are often not or only to a limited extent recognizable from the user's perspective and which are particularly significant for the implementation of ENP in digital records/software products. The database model of ENP in the current version is available in a separate documentation on request.

The historical establishment and development of ENP in very early versions is described in detail in numerous book publications (cf. e.g. Wieteck, 2003, 2004, 2013, 2014) and will therefore not be revisited here. The "how" of further development of the European Nursing care Pathways is also not the focus of this change documentation and will be presented in detail elsewhere². The aim of this document is rather to document the essential changes from one ENP version to the next in a compact and clear way starting with version 2.0. This includes, for example, information on the number and title of new ENP practice guidelines or information on deactivated practice guidelines. Significant changes in the wording of various ENP items are described here, as are shifts in the hierarchy of ENP or central structural innovations.

With the start of the ENP version jump from 3.0 to 3.1, an automatically generated, detailed change documentation in Excel format on the level of the individual ENP items is also available on request in addition to the change documentation in this document, which may be of interest, for example, for software vendors or in the context of discussing ENP on the database level. Finally, detailed revision documentation with a professional focus on individual practice guidelines or singular development tasks is also available upon request. Please contact us for all mentioned documents via e-mail to info@recom.eu.

The current (as of August 2022) ENP version is 3.3.

¹ In the digital context, a mouseover is a technique in which a new display area opens temporarily as soon as and as long as the user moves the mouse pointer over a certain trigger area (here, for example, characteristics or etiologies).

² Reference is made here to the "Scientific Background" on ENP as well as a publication on the principles and methodologies of ENP development. Both documents are available free of charge at <https://www.recom.eu/en/classifications-EN/enp.html> under the heading "Scientific background".

1. Key data on the current version of the European Nursing care Pathways

The current (as of August 2022) ENP version is 3.3. In advance of the change documentation, some current key data on ENP across recent versions is presented to provide an overarching, quantitative scope of ENP.

Terms/concepts of the group	Number 2.9	Number 2.10	Number 3.0	Number 3.1	Number 3.2	Current 3.3
Nursing diagnoses	552	557	566	568	576	580
Characteristics	3,984	4,243	4,439	4,477	4,587	4,770
Etiologies	3,526	3,802	3,983	4,002	4,105	4,210
Resources	648	653	694	697	709	720
Nursing outcomes	1,852	1,865	1,930	1,947	1,975	2,025
Nursing interventions	2,615	2,632	2,653	2,675	2,632	2,639
Intervention specifications	4,797	5,011	5,732	5,827	6,146	6,811

Table 1: Number of items of the ENP groups in the version history

The following table shows the changes to the classes and categories as well as the assignment of new nursing diagnoses with reference to the domains.

Domain	Class				Category				Pre-combined ENP nursing diagnoses			
	2.10	3.0	3.2	3.3	2.10	3.0	3.2	3.3	2.10	3.0	3.2	3.3
Nursing problems in the functional/physiological context	11	11	11	11	67	70	71	71	280	294	300	300
Nursing problems in the emotional/psychosocial context	8	8	8	8	59	60	60	60	224	228	231	233
Nursing problems with multi-dimensional risks	1	1	1	1	9	6	6	6	50	41	42	44
Environmental nursing problems	1	1	1	1	1	1	1	1	3	3	3	3
Total:	21	21	21	21	136	137	138	138	552	566	576	580

Table 1: Number of elements in the ENP nursing problems group version 2.9 (May 2014) to version 2.10 (May 2017), version 3.0 (May 2019), version 3.2 (June 2021), version 3.3. (July 2022)

Evidence levels³ for the ENP nursing diagnoses and ENP practice guidelines were successively developed and specified since 2014. In addition to creating transparency, an important development goal is to make the evidence levels comparable with those of other nursing classification systems. The indication of evidence levels for ENP refers to two levels. On the one hand, the nursing diagnostic statement, i.e. a nursing diagnosis and its definition, characteristics, etiologies, and resources, on the other hand also for the complete practice guideline, i.e. plus the nursing outcomes and nursing interventions associated to the nursing diagnosis. The main reason for this differentiated presentation is the fact, that currently in many cases the diagnostic part of an ENP practice guideline is at a different (often more advanced) developmental level than the associated outcomes and interventions or the ENP practice guideline as a whole. The following figure presents the distribution of evidence levels for ENP nursing diagnoses or ENP practice guidelines of ENP version 3.2 (2021) versus the current version 3.3 (2022).

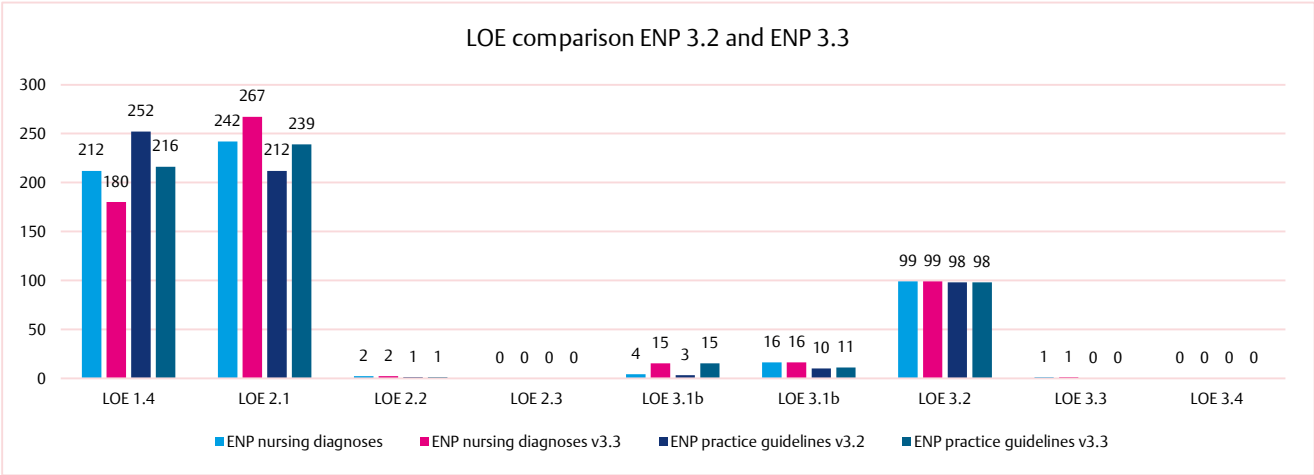


Figure 1: Distribution of evidence levels for ENP nursing diagnoses and ENP practice guidelines in versions 3.2 and 3.3.

³ For further information on the evidence levels and the individual levels, please refer again to the "Scientific background" to ENP.

2. Changes in ENP in the version history

2.1 ENP version 2.0 to 2.4

Not every version of ENP is published as a book publication. Between book publications there are additional version statuses in the ENP database. For example, the field test of ENP in several hospitals was conducted in 2005 with ENP version 2.3. After and during the field test in the canton of St. Gallen, key changes were made in ENP, which are summarized below. For insights into the version history starting with 2.0 as well as deeper insights into the development history of ENP up to version 2.0, please refer to a book publication by Wieteck (2004). Nevertheless, key changes between ENP versions 2.3 and 2.4 are presented below in bullet form, as they are still highly significant for the nursing classification system from a structural perspective:

- Hierarchization work at the level of nursing diagnoses, development of the ENP taxonomy to establish a mono-hierarchical structure for data evaluation.
- Hierarchization works at the level of nursing outcomes, development of an outcome taxonomy.
- Hierarchization works at the level of nursing interventions.
- Review of nursing diagnoses regarding fluctuating level of abstraction and overlap. In this process, from version 2.3 (n=557 practice guidelines) to version 2.4 (n=516 practice guidelines), 41 nursing diagnoses were merged into others and were therefore deactivated.
- Support of ENP through further literature work. Sources used to support practice guidelines, as of version 2.0 (n=279), consisting of professional literature, textbooks, and studies; by version 2.5, the sources of literature used had increased to 520. Increasingly, international literature was used.
- Addressing gaps identified in field tests in terms of completeness and level of detail (cf. e.g. Kossaibati & Berthou, 2006).

2.2 ENP version 2.4 to 2.5 (2008 to 2009)

New ENP practice guidelines (n=14)

ID	ENP nursing diagnosis label
848	The patient has malnutrition due to an eating disorder
849	The patient has malnutrition due to a cognitive impairment
851	The patient is at risk of malnutrition due to cognitive impairment
850	The patient is at risk of malnutrition
855	The patient is impaired in well-being due to tube feeding
852	The patient is unable to keep/can only with effort keep attention to the contra-lesional (=neglected) space or side of the body (=neglect)
853	The patient is impaired in the ability to take up and process information
856	The patient is impaired in the ability to acquire self-care competencies , risk of ineffective therapy
857	The patient has pressure sore , there is difficult wound healing
858	The patient has arterial ulcer , there is difficult wound healing
859	The patient has venous leg ulcer , there is difficult wound healing
861	The patient is impaired in well-being due to a chronic wound
858	The patient has diabetic foot syndrome , there is difficult wound healing
887	The patient is at risk of ineffective treatment due to lack of information/skills in dealing with diabetes/hypo/hyperglycemia

Table 2: New ENP practice guidelines in version 2.5

Comprehensively revised practice guidelines (n=30)

ID	ENP nursing diagnosis label
555	The patient has malnutrition
558	The patient refuses food intake (food refusal), there is a risk of malnutrition
554	The patient shows neglect of food intake , there is a risk of malnutrition
134	The patient has involuntary urine loss due to an increased abdominal pressure (stress incontinence)
135	The patient has involuntary urine loss due to heavy imperative urgency (urge incontinence)
137	The patient has involuntary urine loss at regular times due to a full bladder (spontaneous reflex emptying)
138	The patient has urinary dribbling/ involuntary urine loss due to an chronic urinary retention
574	The patient has an intact urogenital tract and is unable to avoid involuntary urine loss (functional urinary incontinence)
130	The patient has urinary incontinence (mixed form of incontinence/uncategorized form of incontinence) (rest category)
845	The patient has a continuous loss of urine due to extraurethral incontinence
012	The patient is unable to wash independently due to restricted mobility
018	The patient is unable to carry out personal hygiene independently due to hemiplegia/hemiparesis
007	The patient is unable to carry out personal hygiene independently due to physical restrictions in coping with stress

027	The patient is not allowed to exert himself during body washing due to decreased cardiac output , there is a self-care deficit in body washing
029	The patient is unable to hold bathing articles due to restricted mobility , there is a self-care deficit in body washing
022	The patient is unable to perform body washing independently due to disorientation
011	The patient should avoid movement between the pelvis and trunk due to a spinal injury , there is a self-care deficit in body washing
013	The patient is completely dependent during body washing due to a measurable altered consciousness
033	The patient does not adequately perform body washing , there is a self-care deficit in body washing
016	The patient is unable to perform intimate care as usual due to a wound in the genital area
001	The patient is impaired in body washing due to other causes (rest category)
676	The patient has a chronic wound , there is impaired wound healing
339	The patient has a secondary healing wound , there is impaired wound healing
331	The patient has a primary healing wound , there is a risk of impaired wound healing
278	The patient is at risk of complications due to a blunt injury to the extremities
092	The patient is impaired in food intake due to sensory disturbances and hypotonus on one side of the face
094	The patient is impaired in food intake due to restricted mouth closure , food falls/runs out of mouth
078	The patient is impaired in independent finger nail care
827	The patient is impaired in independent foot care
069	The patient is impaired in independent hair care

Table 3: *Comprehensively revised practice guidelines in version 2.5*

Deactivated practice guidelines (n=9)

ID	ENP nursing diagnosis label
339	The patient has a purulent, coated wound, risk of germ spreading
002	The patient has an elevated risk of skin damage due to the use of detergent substances
005	The patient has an elevated risk of inflammation of the eye due to the spread of germs during body washing
071	The patient is unable to wash hair independently
075	The patient has long toenails and is unable to cut them independently
076	The patient has a strong callus formation on the feet and is unable to remove it independently
079	The patient has dirt under the fingernails and is unable to clean them independently
091	The patient is impaired in drinking due to impaired mouth closure , fluid leaks from mouth
093	The patient is restricted in eating/swallowing food, food accumulates in the cheek pouch of the affected side

Table 4: *Deactivated practice guidelines in version 2.5*

Publications included in ENP version 2.5: n=520
2.3 ENP version 2.5 to 2.6 (2009 to May 2011)

New ENP practice guidelines (n=24)

ID	ENP nursing diagnosis label
867	The patient has an impaired self-cleaning function of the lungs (rest category)
868	The patient is impaired in independent eye care (rest category)
869	The patient is at risk of atelectasis/pneumonia due to other causes (rest category)
870	The patient is impaired in swallowing (rest category)
872	The patient is at risk of fluid/electrolyte deficit (rest category)
873	The patient is at risk of impaired breastfeeding (rest category)
877	The patient is impaired in breastfeeding (rest category)
878	The patient has an inadequate nutritional behavior (rest category)
879	The patient is impaired in urinary excretion (rest category)
880	The patient has impaired bowel elimination (rest category)
881	The patient has other impairments in stoma care
886	The patient is at risk of sudden infant death syndrome
892	The child defecates at an age of more than 4 years without organic causes (encopresis)
882	The relative/important person is unable to carry out self-care activities independently
883	The relative/important person is at risk of not being able to carry out self-care activities for the person affected independently
894	The patient has colonization/infection of multi-resistant pathogens , there is the risk of germ transmission
889	The patient has hypertensive crisis due to autonomic dysreflexia
893	The patient is at risk of autonomic dysreflexia due to paraplegia
896	The patient is impaired in the organization of daily life/life due to dementia syndrome
887	The patient is at risk of ineffective treatment due to lack of information/skills in dealing with diabetes/hypo/hyperglycemia
891	The patient is at risk of delayed development
897	The patient is impaired in communication due to a language disorder
898	The patient has excretion/incontinence-associated dermatitis, impaired wound healing
895	The patient has a low activity level, risk of health damage

Table 5: New ENP practice guidelines in version 2.6

The included rest categories (i.e., nursing diagnoses without specification in terms of an etiology, characteristic, or intervention in the nursing diagnosis label) were added in collaboration with project hospitals. These are required because there are nursing problem areas of other types in addition to the specific nursing diagnoses that are already pre-combined.

Comprehensively revised practice guidelines (n=30)

ID	ENP nursing diagnosis label
519	The patient has a sexually transmitted infection/disease , there is a risk of infection for the sexual partner
354	The patient is at risk of hyperglycemia/hypoglycemia
383	The patient has an infectious disease , there is a risk of infection for the environment
263	The patient has an unstable cardiovascular situation due to reduced cardiac output
610	The patient is at risk of cardiovascular complications due to decreased cardiac output
261	The patient is at risk of cardiovascular complications due to hypertensive circulatory changes
260	The patient is at risk of cardiovascular complications due to hypotonic circulatory changes
696	The child wets at an age over 5 years without organic causes (enuresis)
160	The patient is at risk of pressure ulcers (adaption to the current expert standard)
103	The patient receives parenteral feeding via infusion , there is a risk of nutritional complications
097	The patient receives enteral tube feeding , there is impaired food intake
326	The patient is at risk of being under or over infused due to infusion therapy
651	The patient is at risk of complications due to venous catheter/infusion therapy
451	The patient is restricted in independent daily organization/organization of life due to age-related degradation processes
535	The patient is restricted in independent daily organization/organization of life due to a thought disorder
450	The patient is impaired in the independent daily organization/organization of life due to an disorder of orientation
634	The patient is impaired in the daily organization/organization of life due to memory disorders
793	The patient is at risk of complications due to arterial access
627	The patient is reduced in drive , there is a risk of self-care deficit
428	The patient has an impaired reference to reality , due to psychotic experience , there is a risk of self-care deficit
429	The patient is impaired in structuring the daily routine , there is a risk of self-care deficit
426	The patient is impaired in the organization of life , there is a risk of self-care deficit
313	The patient is restricted in the independent daily organization/organization of life due to an ego disturbance
621	The patient is impaired in the daily organization/organization of life due to constantly recurring thoughts that cannot be stopped by logic/reason (obsessive thoughts)
425	The patient is restricted in the independent daily organization/organization of life due to a disability
152	The patient is restricted in the organization of life due to an enterostomy (artificial bowel outlet)
467	The patient is restricted in organizing recreational activities independently
500	The patient repeatedly shows self-injurious behavior , there is an impaired problem/coping strategy
684	The patient shows avoidance behavior due to a lack of confidence in his/her own physical strength
131	The patient is at risk of excretion/incontinence-associated dermatitis

Table 6: Comprehensively revised practice guidelines in version 2.6

Deactivated practice guidelines (n=9)

ID	ENP nursing diagnosis label
188	The patient is at risk of circulatory collapse during mobilization procedures (merged into diagnosis hypotension, ID 260)
325	The patient is at risk of (venous/)inflammation with a CVC (central venous catheter) in place (merged into diagnosis ID 651)
324	The patient is at risk of venous inflammation with venous indwelling cannula in place (merged into diagnosis ID 651)
326	The patient is at risk of being under or over infused due to infusion therapy (merged into diagnosis 651)
887	The patient is at risk of ineffective therapy due to lack of information/skills in dealing with diabetes/hypo/hyperglycemia
082	The patient has a fixation of the nasogastric tube , there is a risk of skin irritation (merged into diagnosis ID 097)
098	The patient has gastrointestinal complaints due to tube feeding (merged into diagnosis ID 097)
106	The patient has blood sugar fluctuations due to diabetes , there is a risk of hyperglycemia or hypoglycemia (merged into diagnosis ID 354, which was abstracted)
107	The patient is at risk of not achieving health related goals due to lack of information/skills in dealing with diabetes

Table 7: Deactivated practice guidelines in version 2.6

Publications included in ENP version 2.6: n=1018

2.4 ENP version 2.6 to 2.7 (May 2011 to August 2012)

The main driving force behind the development work between versions 2.6 and 2.7 were two major projects with hospitals. One is the representation of “therapeutic care” and the other is the specifics of children’s hospitals. Similarly, validation work on ENP has led to the revision of some practice guidelines.

New ENP practice guidelines (n=11)

ID	ENP nursing diagnosis label
898	The patient has excretion/incontinence-associated dermatitis , there is impaired wound healing
900	The patient is unable to wash independently due to a sensory integration disorder
902	The patient shows motor and/or behavioral abnormalities with adaptive responses related to the environment, impaired perception/sensory integration disorder
903	The patient shows no response to stimuli , impaired consciousness
901	The patient is at risk of mucosal irritation/dents due to a palate plate
905	The newborn is at risk of neonatal hyperbilirubinemia
904	The patient has renal impairment/renal failure , there is a metabolic disorder
1017	The patient has a delayed development
1034	Relatives/significant others do not shape education in a way that promotes development , there is a risk of delayed development
1032	The patient is impaired in swallowing due to impaired bolus formation/control/transport
1033	The patient is at risk of aspiration due to lack of/insufficient protective reflexes

Table 8: New ENP practice guidelines in version 2.7

Comprehensively revised practice guidelines (n=20)

ID	ENP nursing diagnosis label
522	The patient has impaired production of breast milk, risk of infant malnutrition
184	The patient is impaired in the ability to sit independently
712	The patient is impaired in the ability to independently carry out repositioning in bed
160	The patient is at risk of pressure ulcers
084	The patient has impaired independence when eating/drinking
842	The patient is developmentally unable to perform self-care in nutrition independently
849	The patient has malnutrition due to cognitive impairment
555	The patient has malnutrition
851	The patient is at risk of malnutrition due to cognitive impairment
608	The patient is impaired in transfer ability
015	The patient is at risk of complications due to reduced body awareness
309	The patient is at risk of complications due to quantitative disorder of consciousness
411	The patient is unable to adequately perceive/process environmental stimuli , there is a risk of misinterpretation
840	The patient has a development of abilities/skills that is not age-appropriate due to impaired development of perceptual systems
537	The patient is impaired in dressing/undressing due to hemiplegia
529	The patient is impaired in independent dressing/dressing due to other causes
154	The patient is at risk of renal failure
234	The patient is at risk of atelectasis/pneumonia due to decreased ventilation of the lungs
828	The patient is at risk of reduced lung ventilation
359	The patient is at risk of complications due to elevated bilirubin levels
814	The patient is at risk of social exclusion due to behaviors that violate valid social norms of society
815	The patient has altered social behavior due to an impaired parent-child relationship that violates the principles of the norm, there is a risk of social exclusion
748	The patient is at risk of delayed development due to separation from parents/significant others
838	The patient is at risk of delayed development due to premature birth
891	The patient is at risk of delayed development
92	The patient is impaired in food intake due to hypotonic cheek/lip/mouth muscles
681	The patient is impaired in food intake due to difficulty chewing
87	The patient frequently chokes during food intake, swallowing is impaired
90	The patient chokes on liquid , swallowing is impaired
95	The patient is impaired in swallowing due to tongue thrust/pressure
96	The patient is impaired in swallowing due to reduced/altered pharyngeal/esophageal peristalsis
870	The patient has other/multiple causes of dysphagia

Table 9: Comprehensively revised practice guidelines in version 2.7

Deactivated practice guidelines (n=5)

ID	ENP nursing diagnosis label
811	The patient is at risk of social exclusion due to an altered social behavior that violates the principles of valid social norms
52	The patient has an impaired swallowing reflex, there is a risk of aspiration during oral hygiene
88	The patient has an absent swallowing reflex , there is a risk of aspiration
89	The patient has an absent cough, gag and swallowing reflex, there is a risk of aspiration of saliva
94	The patient is impaired in food intake due to impaired mouth closure, food leaks from mouth

Table 10: Deactivated practice guidelines in version 2.7

Publications included in ENP version 2.7: n=1214

The practice guidelines were based on 1,214 national and international literature sources at the version status at that time (2012), including German regulations, guidelines and recommendations such as national expert standards, guidelines of the MDS (Medical Service of the Central Association of Health Insurance Funds), legal specifics such as activities according to §87b SGB XI etc.

2.5 ENP versions 2.7 to 2.9 (August 2012 to August 2014)

This revision phase between ENP versions 2.7 and 2.9 brought, in addition to a comprehensive literature-based and systematic revision of approximately one fifth of the nursing diagnostic part of all practice guidelines (nursing diagnosis titles, indicators, etiologies, resources), four new and, with regard to the criteria of transparency, unambiguity, and comprehensibility, central enhancements of a structural nature for the ENP nursing classification system:

- The beginning of the successive development of a definition for each ENP nursing diagnosis (cf. also chapter 1.4.1)
- The successive development and specification of the level of evidence (LOE) for each nursing diagnosis as well as for the entire ENP practice guideline (cf. chapter 2)
- Documentation of the revision history for each systematically revised practice guideline, which can be used to track the number and date of revisions for both each nursing diagnosis and each practice guideline.
- The successive establishment of (according to demand) explanatory texts for items at the level of characteristics, etiologies, and resources or detailed interventions. These are used, for example, for Latin technical terms, ambiguous terms, or terms that are not commonly used, and serve to bridge ambiguities or possible knowledge gaps on the part of ENP users (see also chapter 1.4.7).

The following excerpt from the ENP development team's revision documentation serves as an exemplary illustration of the documentation of the revision history of the practice guideline "... is at risk of atelectasis/pneumonia due to **thick bronchial secretions**" using an example from the respiratory class.

Text type		ID number	ENP text for nursing diagnosis
	Revision history: 1989*, 2003, 2009, 2014, 2017, 2019		
		ENP practice guideline	ENP nursing diagnosis
	Evidence level	LOE 3.1b	LOE 3.1b
Class		10,052	Respiration
Category		10,484	Risk of atelectasis/pneumonia
Nursing diagnosis		223	The patient is at risk of atelectasis/pneumonia due to thick bronchial secretions
Definition			There is the risk of ventilatory defect/collapse of sections or the entire lung and/or the development of inflammation of the lung tissue, due to the secretion of mucus secretion of the glands in the bronchi which is difficult or impossible to expectorate.

Table 11: Excerpt from a revision documentation of the ENP development team: definition of nursing diagnosis, levels of evidence, and revision history as new elements added in 2014.

The following tabular overviews present those ENP practice guidelines that were newly created, comprehensively edited in terms of content, or deactivated as part of the work from ENP version 2.7 to 2.9.

New ENP practice guidelines (n=17)

LOE related to the guideline	LOE related to the diagnosis	Year of development	ID	ENP nursing diagnosis label 2.9
LOE 2.1	LOE 2.1	2014*	1080	The patient is at risk of impaired mobility
LOE 2.1	LOE 2.1	2014*	1072	The patient is impaired in well-being [nursing problem without specification]
LOE 2.1	LOE 2.1	2013*	1071	The patient is impaired in performing the activities of daily living
LOE 2.1	LOE 2.1	2013*	1070	The newborn has neonatal hyperbilirubinemia
LOE 2.1	LOE 2.1	2013*	1068	The patient is at risk of impaired wound healing due to intertrigo
LOE 2.1	LOE 2.1	2013*	1067	The patient has a disturbance of the electrolyte balance
LOE 2.1	LOE 2.1	2013*	1066	The patient shows an allergic reaction , there is the risk of anaphylactic shock
LOE 2.1	LOE 2.1	2013*	1064	The patient has a fluid deficit
LOE 2.1	LOE 2.1	2013*	1063	The patient is at risk of pulmonary complications due to surgery

LOE 2.1	LOE 2.1	2013*	1062	The patient has insufficient respiration
LOE 2.1	LOE 2.1	2012*	1041	The patient is at risk of complications due to tick bite
LOE 2.1	LOE 2.1	2012*	1040	The patient is at risk of impaired development due to physical/medical neglect
LOE 2.1	LOE 2.1	2012*	1039	The patient is at risk of delayed development due to psychological abuse/emotional neglect
LOE 2.1	LOE 2.1	2012*	1035	The patient is at risk of impaired development due to physical abuse
LOE 2.1	LOE 2.1	2012*	1038	The patient is at risk of impaired development due to a suspected sexual abuse/rape
LOE 2.1	LOE 2.1	2012*	1037	The patient is at risk of impaired development due to sexual abuse/rape
LOE 2.1	LOE 2.1	2012*	1037	The patient is at risk of physical abuse

Table 12: New ENP practice guidelines in version 2.9

Comprehensively revised practice guidelines (n=112)

LOE related to the guideline	LOE related to the diagnosis	Systematic update	ID	ENP nursing diagnosis label 2.9
LOE 3.2	LOE 3.2	1989*, 1994, 2007, 2014	407	The patient is impaired in communication due to hypacusis (hearing loss)
LOE 3.2	LOE 3.2	1991*, 2004, 2007, 2014	416	The patient is impaired in verbal communication due to global aphasia
LOE 3.2	LOE 3.2	1991*, 2004, 2007, 2014	419	The patient is impaired in verbal communication due to motor aphasia (Broca's aphasia)
LOE 3.2	LOE 3.2	1991*, 2004, 2007, 2014	417	The patient is impaired in verbal communication due to sensory aphasia (Wernicke's aphasia)
LOE 2.1	LOE 2.3	1992*, 1994, 2003, 2008, 2014	412	The patient is impaired in verbal communication due to reduced endurance/physical strength
LOE 3.2	LOE 3.2	2006*, 2014	387	The patient has difficulty expressing his/her own wishes/needs , there is a risk that these are not adequately fulfilled
LOE 2.1	LOE 2.3	2000*, 2006, 2014	424	The patient is impaired in verbal communication due to a speech disorder (impairment of motor-articulatory skills)
LOE 2.1	LOE 2.1	2010*; 2014	897	The patient is impaired in communication due to a language disorder
LOE 3.2	LOE 3.2	1990*, 2006, 2014	414	The patient is unable to make contact in the usual way , there is impaired interaction
LOE 2.1	LOE 2.3	2005*, 2011, 2014	411	The patient is unable to adequately perceive/process environmental stimuli , there is a risk of misinterpretation
LOE 3.2	LOE 3.2	2000*, 2004, 2006, 2014	746	The patient is limited in establishing and maintaining relationships , social interaction is impaired

LOE 2.1	LOE 2.3	1993*, 2004, 2007; 2014	186	The patient is impaired in the ability to walk
LOE 2.1	LOE 2.3	1992*, 1994, 2004, 2008, 2014	193	The patient is impaired in walking due to insecure use of walking aids
LOE 3.2	LOE 3.2	1992*, 2001, 2011, 2014	608	The patient is impaired in transfer ability
LOE 3.2	LOE 3.2	1990*, 2004, 2007, 2011, 2014	181	The patient is impaired in the ability to independently carry out repositioning in bed
LOE 2.1	LOE 2.1	1989*, 1994, 2004, 2008, 2014	592	The patient is unable to move independently in the living space with the wheelchair
LOE 3.2	LOE 3.2	2001*, 2004, 2008, 2014	648	The patient is impaired in mobility due to reduced endurance/physical strength
LOE 2.1	LOE 2.3	1992*, 1994, 2004, 2007, 2014	179	The patient has limited mobility due to amputation of a lower limb
LOE 2.1	LOE 2.3	1990*, 1994, 2002, 2006, 2007, 2014	171	The patient is at risk of contracture
LOE 3.2	LOE 3.2	1991*, 1994, 2007, 2014	178	The patient has limited mobility due to a contracture
LOE 3.2	LOE 3.2	1991*, 1994, 2004, 2008, 2014	165	The patient is at risk of thrombosis due to immobility/restricted mobility
LOE 3.2	LOE 3.2	1992*, 1994, 2004, 2009, 2014	261	The patient is at risk of cardiovascular complications due to hypertonic circulatory changes
LOE 2.1	LOE 2.3	1993*, 1994, 2005, 2009; 2014	610	The patient is at risk of cardiovascular failure due to heart failure
LOE 2.1	LOE 2.3	1989*, 1994, 2004, 2011, 2014	234	The patient is at risk of atelectasis/pneumonia due to reduced lung ventilation
LOE 3.2	LOE 3.2	2005*, 2007, 2014	347	The patient is limited in taking medication independently , there is a risk of ineffective therapy
LOE 3.2	LOE 3.2	1992*, 2004, 2008, 2011, 2014	688	The patient is at risk of aspiration
LOE 3.2	LOE 3.2	1989*, 1994, 2004, 2008, 2014	12	The patient is unable to wash independently due to movement restriction
LOE 3.2	LOE 3.2	1991*, 1994, 2004, 2008; 2014	22	The patient is unable to perform body washing independently due to disorientation
LOE 3.1	LOE 3.1	1991*, 1994, 2004, 2008, 2014	33	The patient does not carry out body washing adequately due to self-neglect
LOE 3.2	LOE 3.2	1989*, 1994, 2004, 2008, 2014	7	The patient is unable to carry out personal hygiene independently due to limited physical capacity
LOE 3.2	LOE 3.2	1989*, 1994, 2003, 2007, 2014	18	The patient is unable to carry out personal hygiene independently due to hemiplegia/hemiparesis
LOE 3.1	LOE 3.1	1991*, 2000, 2004, 2008, 2014	13	The patient is completely dependent in personal hygiene due to a measurable altered consciousness
LOE 3.1	LOE 3.1	2001*, 2004, 2008, 2014	536	The patient is unable to shower/bathe independently

LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2007, 2009, 2014	37	The patient is impaired in independent oral hygiene
LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2009, 2014	46	The patient wears dentures and is unable to carry out oral/denture hygiene independently
LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2008, 2014	69	The patient is impaired in independent hair care
LOE 3.2	LOE 3.2	1989*, 1994, 2004, 2007, 2014	72	The patient is impaired in shaving/beard care independently
LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2009, 2014	78	The patient is impaired in independent fingernail care
LOE 3.2	LOE 3.2	1989*, 1994, 2004, 2009*, 2014	827	The patient is impaired in independent foot care
LOE 3.2	LOE 3.2	1989*, 1994, 2003, 2007; 2014	63	The patient is at risk of skin damage due to dry skin
LOE 3.2	LOE 3.2	1991*, 1994, 2004, 2008, 2014	66	The patient is at risk of skin damage due to tendency to intertrigo
LOE 3.2	LOE 3.2	1989*, 1994, 2004, 2011, 2014	84	The patient is is impaired in eating/drinking due to limited independence
LOE 3.2	LOE 3.2	2002*, 2004, 2008, 2014	554	The patient shows neglect of food intake (self-neglect), there is a risk of malnutrition
LOE 2.1	LOE 2.3	2003*, 2008; 2014	559	The patient is at risk of developing obesity due to deficient dietary behaviors
LOE 3.2	LOE 3.2	2002*, 2008, 2014	562	The patient is at risk of fluid deficit due to oligodipsia/adipsia (reduced/absent sense of thirst)
LOE 2.1	LOE 2.3	2009*, 2014	872	The patient is at risk of fluid/electrolyte deficit
LOE 2.1	LOE 2.3	2008*, 2014	850	The patient is at risk of malnutrition
LOE 2.1	LOE 2.3	2008*; 2014	851	The patient is at risk of malnutrition due to cognitive impairment
LOE 3.2	LOE 3.2	2004*, 2007, 2008, 2014	558	The patient refuses food intake (food refusal), there is a risk of malnutrition
LOE 3.1	LOE 3.1	2004*; 2008, 2014	555	The patient has malnutrition
LOE 3.2	LOE 3.2	1990*, 2003, 2009; 2014	97	The patient receives enteral tube feeding , there is impaired food intake
LOE 3.1	LOE 3.1	1989*, 2003, 2009, 2011; 2014	87	The patient frequently chokes during food intake, swallowing is impaired in the oral transport/pharyngeal stage
LOE 3.1	LOE 3.1	1989*, 2003, 2009, 2011; 2014	90	The patient chokes only while drinking , swallowing is impaired in the oral transport/pharyngeal stage
LOE 3.2	LOE 3.2	1989*, 1994, 2004, 2008, 2014	127	The patient is impaired in independent urinary/stool excretion
LOE 3.2	LOE 3.2	2003*, 2006, 2014	132	The patient does not reach the toilet in time due to restricted mobility , there is a risk of enuresis
LOE 3.2	LOE 3.2	2003*, 2006, 2008; 2012, 2014	130	The patient has involuntary urinary leakage (mixed incontinence) due to detrusor hyperactivity and insufficiency of the sphincter apparatus

LOE 3.2	LOE 3.2	2006*, 2008, 2012, 2014	574	The patient is unable to avoid urinary leakage with an intact urogenital tract (functional urinary incontinence)
LOE 3.2	LOE 3.2	1990*, 2003, 2006, 2008, 2012, 2014	134	The patient has involuntary urinary leakage (stress incontinence) due to an insufficient sphincter apparatus with increased abdominal pressure
LOE 3.2	LOE 3.2	2003*, 2006, 2008, 2012, 2014	137	The patient has involuntary urinary leakage (reflex incontinence) due to involuntary, uninhibited detrusor contractions
LOE 3.2	LOE 3.2	2003*, 2006, 2008, 2012, 2014	135	The patient has involuntary urinary leakage due to strong/imperative urinary urgency (urge incontinence)
LOE 3.2	LOE 3.2	1990*, 2003, 2006, 2012, 2014	143	The patient is at risk of a decreased frequency of defecation (risk of constipation)
LOE 3.2	LOE 3.2	2003*, 2006, 2012, 2014	576	The patient has decreased frequency of defecation associated with hard/dry stools (constipation)
LOE 3.2	LOE 3.2	1989*, 2003, 2006, 2012, 2014	145	The patient has involuntary defecation (fecal incontinence)
LOE 3.2	LOE 3.2	1991*, 1994, 2003, 2006, 2012, 2014	321	The patient is at risk of an ascending urinary tract infection due to an indwelling transurethral bladder catheter
LOE 3.2	LOE 3.2	1991*, 2003, 2006, 2012, 2014	322	The patient is at risk of infection of the excretory organs due to a suprapubic bladder catheter
LOE 3.2	LOE 3.2	1992*, 1994, 2004, 2007, 2011, 2014	529	The patient is impaired in independent dressing/undressing
LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2008, 2014	170	The patient is unable to put on/take off the compression stockings independently , there is a self-care-deficit in dressing
LOE 2.1	LOE 2.3	2001*, 2004, 2007, 2014	530	The patient shows no interest in clean/neat clothing , there is a risk of self-neglect in the field of clothing/outward appearance
LOE 2.1	LOE 2.3	1991*, 1994, 2004, 2008, 2014	537	The patient is impaired in dressing/undressing due to hemiplegia
LOE 3.2	LOE 3.2	1990*, 1995, 2004, 2014	299	The patient is unable to sleep through the night , there is a risk of sleep deficit
LOE 3.2	LOE 3.2	1990*, 1995, 2004, 2007, 2014	282	The patient is impaired in falling asleep , there is a risk of sleep deficit
LOE 2.1	LOE 2.3	1991*, 1995, 2003, 2007, 2014	479	The patient is unable to relax
LOE 2.1	LOE 2.3	1992*, 1994, 2003, 2007, 2009, 2014	467	The patient is restricted in organizing recreational activities independently
LOE 2.1	LOE 2.1	2006*, 2009, 2014	451	The patient is limited in independent daily organization/organization of life due to age-related degradation processes (frailty syndrome)
LOE 2.1	LOE 2.3	2006*, 2010, 2014	450	The patient is impaired in the independent daily organization/organization of life due to disorder of orientation
LOE 2.1	LOE 2.1	2006*, 2009, 2014	634	The patient is impaired in the daily organization/organization of life due to memory disorders
LOE 2.1	LOE 2.3	2006*, 2009, 2014	535	The patient is impaired in the daily organization/organization of life due to a thought disorder

LOE 2.1	LOE 2.1	2006*, 2009, 2014	896	The patient is impaired in the daily organization/life organization due to dementia syndrome
LOE 2.1	LOE 2.1	1993* 2003, 2009, 2014	452	The patient is impaired in the independent daily organization/organization of life due to disability
LOE 2.1	LOE 2.1	2003*, 2007, 2014	547	The patient is limited in styling the outward appearance and thus impaired in well-being
LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2008, 2014	187	The patient is at risk of falls
LOE 2.1	LOE 2.1	2005*, 2007, 2014	203	The patient has impaired postural control/balance due to Parkinson's disease , risk of falls
LOE 2.1	LOE 2.3	1993*, 2004, 2007, 2014	216	The patient is at risk of falls due to impaired balance when walking/standing/sitting
LOE 3.2	LOE 3.2	1989*, 1995, 2003, 2007, 2010, 2012, 2014	160	The patient is at risk of pressure ulcers
LOE 2.1	LOE 2.3	1991*, 1995, 2004, 2007, 2014	431	The patient withdraws from social events , there is a risk of social isolation
LOE 2.1	LOE 2.1	2001*, 2008, 2014	429	The patient is impaired in structuring the daily routine , there is a risk of self-care deficit
LOE 2.1	LOE 2.3	2002*, 2008, 2014	626	The patient shows tendencies to run away , there is a risk of self-endangerment
LOE 2.1	LOE 2.1	2003*, 2007, 2014	217	The patient is impaired in spatial orientation due to balance disorders
LOE 3.2	LOE 3.2	2002*, 2005, 2008, 2014	317	The patient is at risk of self-endangerment/danger to others due to disorientation
LOE 2.1	LOE 2.3	2005*, 2008, 2014	743	The patient shows acute behavior endangering self/others
LOE 3.2	LOE 3.2	1990* 2003, 2007 2014	489	The patient has acute pain
LOE 3.2	LOE 3.2	2003*, 2007, 2014	645	The patient has chronic pain
LOE 2.1	LOE 2.3	1991*, 2004, 2007, 2014	493	The patient has pain of the musculoskeletal system
LOE 2.1	LOE 2.3	1991*, 2004, 2007, 2014	491	The patient has joint pain with functional/movement restrictions
LOE 2.1	LOE 2.3	1990*, 1994, 2004, 2009, 2014	354	The patient is at risk of hyperglycemia/hypoglycemia
LOE 2.1	LOE 2.3	2003*, 2006, 2009, 2014	676	The patient has a chronic wound , there is impaired wound healing
LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2014	497	The patient is afraid , feels a real/fictional threat
LOE 3.2	LOE 3.2	1990*, 1994, 2004, 2014	190	The patient is afraid of falling
LOE 2.1	LOE 2.3	1990*, 1994, 2004, 2014	498	The patient is afraid of falling out of the bed
LOE 2.1	LOE 2.3	2004*, 2008, 2014	703	The patient suffers from restlessness (agitation)

LOE 2.1	LOE 2.3	1991*, 2004, 2007, 2014	464	The patient feels boredom due to a lack of meaningful tasks
LOE 2.1	LOE 2.3	2004*, 2008, 2014	503	The patient suffers from homesickness
LOE 2.1	LOE 2.1	1989*, 1994, 2004, 2008, 2014	68	The patient is impaired in well-being due to pruritus
LOE 3.2	LOE 3.2	1989*, 1994, 2004, 2008, 2014	39	The patient has reduced chewing activity/salivation , there is a risk of thrush and parotitis
LOE 2.1	LOE 2.1	1991*, 1994, 2004, 2008, 2014	131	The patient is at risk of excretion/incontinence-associated dermatitis
LOE 3.2	LOE 3.2	2005*, 2006, 2008, 2011, 2014	857	The patient has a pressure ulcer , there is difficult wound healing
LOE 3.2	LOE 3.2	2003*, 2008, 2014	622	The patient is at risk of increased (extracellular/intravascular) fluid volume
LOE 2.1	LOE 2.1	2003*, 2008, 2011, 2014	887	The patient is at risk of ineffective therapy due to lack of information/skills in dealing with diabetes/hypo-/hyperglycemia
LOE 2.1	LOE 2.3	2006*, 2011, 2014	569	The patient has the risk of skin damage due to sensitive/thin skin
LOE 2.1	LOE 2.3	2006*, 2009, 2014	383	The patient has an infectious disease , there is a risk of infection for the environment
LOE 2.1	LOE 2.1	2009*, 2014	894	The patient has colonization/infection with multiresistant pathogens , there is the risk of germ transmission
LOE 3.2	LOE 3.2	1989*, 2003, 2006, 2009, 2014	339	The patient has a secondary wound healing , there is impaired wound healing

Table 13: Comprehensively revised practice guidelines in version 2.9

Deactivated practice guidelines (n=13)

As part of the revision the nursing diagnoses listed below were merged or transferred into a new diagnosis.

ID	ENP nursing diagnosis label
52	The patient has an impaired swallowing reflex , there is a risk of aspiration during oral hygiene
88	The patient has an absent swallowing reflex , there is a risk of aspiration
89	The patient has an absent cough, gag and swallowing reflex , there is a risk of aspiration of saliva
94	The patient is impaired in food intake due to impaired mouth closure , food leaks from mouth
561	The patient is at risk of fluid deficit
654	The patient must be on a low-protein diet due to intolerance , there is a risk of nutritional complications
828	The patient is at risk of reduced lung ventilation
235	The patient breathes shallowly and is unable to carry out active breathing exercises , there is a risk of atelectasis/pneumonia
249	The patient is unable to expectorate due to impaired glottic closure , there is a risk of atelectasis/pneumonia
198	The patient is limited in range of motion due to external factors

206	The patient is impaired in mobility due to exertional pain
647	The patient has postoperative movement restriction
490	The patient has joint pain with start-up pain

Table 14: Deactivated practice guidelines in version 2.9

Publications included in ENP version 2.9: n=3,545

The practice guidelines are based on 3,545 national and international literature sources in version 2.9 (2014). These include German regulations, guidelines and recommendations such as the national expert standards, etc., as well as numerous international guidelines.

2.6 ENP version 2.9 to 2.10 (September 2014 to May 2017)

In addition to technical and content-related revisions of the ENP catalog, considerable effort was made in the revision period between the ENP version 2.9 and 2.10 for the methodology of the ENP development procedures as well as the creation of a new methodological and practically appropriate validation option for the created or revised ENP content (cf. chapters 1.7.2 and 1.7.3) and thus a large amount of resources was invested in structural and content-related work of ENP.

Those ENP practice guidelines that have undergone changes in content, were terminologically refined or are new additions in version 2.10 are listed in the following table⁴. The majority of the changes and new developments are based on suggestions from users who use ENP in their daily nursing practice. For detailed information on the changes at detail/item level there is a separate change documentation for each revised practice guideline available on request. As part of the further development work from ENP version 2.9 to version 2.10, no practice guideline was deactivated.

New ENP practice guidelines (n=5)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 2.1	LOE 2.1	1081	The patient is impaired in interaction due to inadequate emotional/affective response patterns
LOE 2.1	LOE 2.1	1082	The patient is impaired in communication due to a formal thought disorder
LOE 2.1	LOE 2.1	1084	The patient has a bladder emptying dysfunction/urinary incontinence , there is an impaired help-seeking behavior
LOE 2.1	LOE 2.1	1120	The patient has a urostoma (surgical urinary diversion), there is a self-care deficit stoma care/management
LOE 2.1	LOE 2.1	1121	The patient is at risk of developing a stoma complication

Table 15: New ENP practice guidelines in version 2.10

⁴Not listed in the tables are terminologically or content-related changes to individual items that have no relevance to the context/topic of one or more assigned practice guidelines.

Comprehensively, systematically further developed practice guidelines (n=13)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 3.2	LOE 3.2	149	The patient has an enterostomy (artificial bowel outlet), there is a self-care deficit stoma care/management (previously: The patient has a self-care deficit in stoma care)
LOE 2.1	LOE 2.1	148	The patient has a stoma , there is a need of information (previously: The patient has an enterostomy (artificial bowel outlet), there is a need of information)
LOE 2.1	LOE 2.1	153	The patient has a colostomy (artificial bowel outlet), information/skills are lacking to carry out irrigation independently (previously: The patient has a enterostomy (artificial bowel outlet), information/skills are lacking to carry out irrigation independently)
LOE 3.2	LOE 3.2	268	The patient has fever (pyrexia), there is a risk of complications (previously: The patient has hyperthermia , there is a risk of complications)
LOE 2.1	LOE 2.1	580	The patient has a skin change in the area around the stoma, there is impaired stoma care (previously: The patient has a skin change in the area around the enterostomy, there is impaired stoma care)
LOE 2.1	LOE 2.1	581	The patient has stoma necrosis , there is an impaired stoma care
LOE 2.1	LOE 2.1	582	The patient has stoma retraction , there is an impaired stoma care
LOE 2.1	LOE 2.1	583	The patient has stoma prolapse , there is an impaired stoma care
LOE 2.1	LOE 2.1	584	The patient has parastomal hernia , there is an impaired stoma care
LOE 2.1	LOE 2.1	674	The patient is impaired in the ability to adapt to the change in health status
LOE 2.1	LOE 2.1	881	The patient has any other problem stoma which impairs stoma care (previously: The patient has other impairments in stoma care)
LOE 2.1	LOE 2.1	1063	The patient is at risk of respiratory complications due to a surgical procedure
LOE 3.2	LOE 3.2	134	The patient has involuntary urinary leakage (stress incontinence) due to an insufficient sphincter apparatus with increased abdominal pressure

Table 16: Comprehensively revised ENP practice guidelines version 2.10

Terminologically and/or selectively revised practice guidelines (n=19)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 2.1	LOE 2.1	68	The patient is impaired in well-being due to (itching) pruritus
LOE 3.2	LOE 3.2	130	The patient has involuntary urinary leakage (mixed incontinence) due to detrusor hyperactivity and insufficiency of the sphincter apparatus
LOE 3.2	LOE 3.2	137	The patient has involuntary urinary leakage (reflex incontinence) due to involuntary, uninhibited detrusor contractions
LOE 2.1	LOE 2.1	138	The patient has chronic urinary retention and involuntary urinary leakage (overflow incontinence)
LOE 2.1	LOE 2.1	151	The patient has a mycosis (fungal infection) in the area of the stoma, there is impaired stoma care
LOE 2.1	LOE 2.1	160	The patient is at risk of pressure ulcers
LOE 2.1	LOE 2.1	359	The patient has jaundice due to an elevated bilirubin level
LOE 2.1	LOE 2.1	369	The patient is at risk of aspirating due to postoperative nausea and vomiting (PONV)
LOE 2.1	LOE 2.1	383	The patient has an infectious disease , there is a risk of germ transmission
LOE 3.2	LOE 3.2	574	The patient is unable to avoid urinary leakage with an intact urogenital tract (functional urinary incontinence)
LOE 2.1	LOE 2.1	696	The child wets at an age over 5 years without organic causes (enuresis)
LOE 2.1	LOE 2.1	706	The patient is currently impaired in well-being due to nausea (sickness)
LOE 2.1	LOE 2.1	905	The newborn baby is at risk of neonatal jaundice
LOE 2.1	LOE 2.1	1070	The newborn has neonatal jaundice , there is a risk of complications
LOE 3.2	LOE 3.2	165	The patient is at risk of venous thrombosis due to immobility/restricted mobility
LOE 2.1	LOE 2.1	279	The patient is at risk of venous thrombosis due to varicosis
LOE 2.1	LOE 2.1	591	The patient has other risk factors that promote the risk of thrombosis
LOE 2.1	LOE 2.1	859	The patient has venous leg ulcer , there is impaired wound healing
LOE 3.2	LOE 3.2	135	The patient has an involuntary urinary leakage during a strong/ imperative urge to urinate (urge incontinence)

Table 17: Terminologically and/or selectively revised practice guidelines in version 2.10

As of May 2017, the 557 ENP practice guidelines of version 2.10 are based on the analysis of a total of approx. 3,960 publications. For the content work on the changes from ENP, version 2.9 to version 2.10, a total of about 410 systematically researched, national and international publications were used.

2.7 ENP Version 2.10 to 3.0 (June 2017 to May 2019)

The further development work for the leap to ENP version 3.0 in May 2019 included, in addition to numerous technical aspects that are presented in tabular form below, the completion and final concept of two structural elements whose development was started in 2014. On the one hand, there is the systematic development of a definition for each nursing diagnosis in the ENP catalog (cf. chapter 1.4.1), and on the other hand the complete specification of evidence levels for all nursing diagnoses as well as for all practice guidelines in ENP. For further information on evidence levels in ENP, see chapter 2.

All definitions of nursing diagnoses already created in the period between 2012 and May 2017 (approx. 120), i.e. the completion of ENP version 2.10, were reviewed again with regard to currentness, syntax and correctness and revised as necessary to be able to ensure a clear description of the concept terms included in the nursing diagnoses and their interrelationships. At the same time, the work on the definitions gave the ENP development team the opportunity to review all nursing diagnosis labels in ENP regarding syntax, and to check and standardize wording and use of technical terms without changing the scope of meaning of the nursing diagnosis, if this was not technically required by the elements of the respective practice guideline. In this way, the wording was optimized for a total of 317 ENP nursing diagnoses in version 3.0, 239 ENP nursing diagnoses remained unchanged in their wording compared with version 2.10. The following table illustrates the linguistic improvements using some examples⁵.

ENP nursing diagnoses label version 2.10	ENP nursing diagnosis label version 3.0
The patient has gout , there is a risk of nutritional complications	The patient is at risk of nutritional complications due to uricopathy (gout)
The patient is at risk of fluid/electrolyte deficit due to fever	The patient is at risk of dehydration/electrolyte deficit due to pyrexia (fever)
The patient must not strain during defecation, there is a risk of complications	The patient must avoid abdominal press during defecation , there is a risk of complications
The patient has a colostomy (artificial bowel outlet), information/skills are lacking to carry out irrigation independently	The patient has an information deficit/lacking skills to independently irrigate the colostomy
The patient is at risk of getting nosebleeds (epistaxis)	The patient is at risk of epistaxis (nosebleed)
The patient is at risk of non-physiological body temperature	The patient is at risk of hyper-/hypothermia

Table 18: Exemplary comparison of changes in nursing diagnoses labels of ENP 3.0 compared to 2.10

Furthermore, as part of this comprehensive review of the ENP catalog a number of nursing diagnoses could not only be concretized and refined linguistically, but also optimized with regard to their hierarchical positioning within ENP, i.e. their thematic assignment to superordinate categories and classes (cf. chapter 1.1). The following table lists all 13 nursing diagnoses that were moved within the hierarchy of ENP 3.0, and where appropriate, linguistically improved.

⁵ An overview with all changes to the ENP nursing diagnoses labels in version 3.0 is available on request.

ID	ENP version	Nursing diagnosis label	Class	Category
15	ENP 2.10	The patient is at risk of complications due to a reduced body awareness	Health risks (non-specific)	Risk of complications: altered awareness
	ENP 3.0	The patient is at risk of is at risk of perception-related complications due to reduced body awareness	Perception	Risk of complications due to perceptual disorders
309	ENP 2.10	The patient is at risk of complications due to quantitative disorder of consciousness	Health risks (non-specific)	Risk of complications: altered awareness
	ENP 3.0	The patient is at risk of perceptual complications due to quantitative disorder of consciousness	Perception	Risk of complications due to perceptual disorders
585	ENP 2.10	The patient is at risk of complications due to urinary obstruction	Health risks (non-specific)	Risk of complications: pathological changes
	ENP 3.0	The patient has obstructive urinary retention, there is the risk of complications	Elimination	Risk of urinary retention/renal failure
140	ENP 2.10	The patient has postoperative urinary retention, there is a risk of complications	Elimination	Impaired urinary excretion
	ENP 3.0	The patient has postoperative urinary retention, there is a risk of complications	Elimination	Risk of urinary retention/renal failure
604	ENP 2.10	The patient is at risk of edema formation/deformation in the residual limb due to an amputation	Tissue integrity	Risk of impaired wound healing
	ENP 3.0	The patient is at risk of edema formation/deformation in the residual limb due to an amputation	Tissue integrity	Risk of swelling/edema formation
613	ENP 2.10	The patient shows aimless/involuntary motor activity, is impaired in carrying out activities of daily living	Activity/daily routine	Impaired performance of activities
	ENP 3.0	The patient is impaired in motion sequence due to a movement disorder	Exercise/mobility	Impaired movement sequence/pattern
837	ENP 2.10	The caregiver has a lack of information/skills to take over the care of the affected person	Knowledge/information	Lack of information/abilities
	ENP 3.0	The relative/significant other is unable to carry out dependency care independently due to lack of information/skills	Activity/daily routine	Dependency care
511	ENP 2.10	The patient is attracted to people of the same sex, suffers from sexual inclination deviating from the norm	Society	Norm conflict
	ENP 3.0	The patient perceives a norm conflict due to a sexual orientation that deviates from the norm and suffers from it	Sensation	Personal suffering
384	ENP 2.10	The patient has a demeaning/degrading communication style, there is a risk of social isolation	Society	Risk of social isolation
	ENP 3.0	The patient has a demeaning/degrading communication style, there is a risk of social exclusion	Society	Risk of social exclusion
563	ENP 2.10	The patient has metabolic dehydration, there is a risk of complications	Health risks (non-specific)	Risk of complications: dehydration
	ENP 3.0	The patient has metabolic fluid deficit, there is a risk of dehydration-related complications	Nutrition	Dehydration/electrolyte imbalance
564	ENP 2.10	The patient has dehydration due to loss of body fluid/lack of fluid substitution, there is a risk of complications	Health risks (non-specific)	Risk of complications: dehydration
	ENP 3.0	The patient is at risk of dehydration-related complications due to loss of body fluid/lack of fluid replacement	Nutrition	Dehydration/electrolyte imbalance

258	ENP 2.10	The patient is at risk of postoperative bleeding, pleural effusion, pneumothorax, and atelectasis formation due to lung surgery	Health risks (non-specific)	Risk of complications: postoperative
	ENP 3.0	The patient is at risk of respiratory complications due to a surgical procedure on the lung	Respiration	Risk of impaired respiration postoperatively
589	ENP 2.10	The patient is at risk of complications due to increased (extracellular/intravascular) fluid volume	Health risks (non-specific)	Risk of complications: pathological changes
	ENP 3.0	The patient is at risk of complications due to hyperhydration (excess body fluid)	Nutrition	Risk of impaired fluid and electrolyte balance

Table 19: Hierarchically shifted ENP practice guidelines in version 3.0

ENP practice guidelines that were comprehensively and systematically developed in terms of content, as well as newly created ENP practice guidelines, are presented the table below. Similar to the development from ENP version 2.9 to 2.10, no practice guidelines were deactivated during the version jump to 3.0. Once again, the feedback and suggestions of ENP users from daily nursing practice have contributed many valuable impulses for further development. More in-depth information on changes at detail/item level provided here in this scientific background are available upon request for each revised practice guideline.

New ENP practice guidelines (n=10)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 2.1	LOE 2.1	1122	The patient has a ulcus cruris mixtum/uncategorized ulcer cruris , there is impaired wound healing
LOE 1.4	LOE 1.4	1123	The patient is developmentally unable to independently carry out self-care in the area of elimination
LOE 2.1	LOE 2.1	1124	The child/newborn is at risk of developing impaired attachment abilities to the parents/guardians
LOE 1.4	LOE 1.4	1146	The patient has impaired defecation
LOE 2.1	LOE 2.1	1147	The patient has a need for knowledge about health-promoting behavior in neonatal care
LOE 1.4	LOE 1.4	1148	The patient is at risk of premature birth due to cervical shortening/insufficiency
LOE 1.4	LOE 1.4	1174	The patient has a need for knowledge about health-promoting behavior in neonatal care
LOE 2.1	LOE 2.1	1175	The patient is at risk of developing frailty syndrome with age
LOE 2.1	LOE 2.1	1176	The patient is at risk of developing urinary incontinence
LOE 1.4	LOE 1.4	1178	The newborn is at risk of complications due to neonatal withdrawal syndrome

Table 20: New ENP practice guidelines in version 3.0

Comprehensively, systematically further developed practice guidelines (n=5)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 2.1	LOE 2.1 (in future: LOE 3.1a)	808	The patient suffers from fatigue (exhaustion/tiredness) (previously: The patient suffers from chronic fatigue (exhaustion/tiredness))
LOE 3.1b	LOE 3.1b	223	The patient is at risk of atelectasis/pneumonia due to thick bronchial secretions
LOE 2.1 (in future: LOE 3.1a)	LOE 2.1 (in future: LOE 3.1a)	896	The patient is impaired in the independent daily organization/organization of life due to dementia syndrome
LOE 2.1	LOE 2.1 (in future: LOE 3.1a)	220	The patient has dyspnea , there is insufficient respiration (previously: The patient has shortness of breath (dyspnea) , there is insufficient respiration)
LOE 2.1	LOE 2.1	809	The patient has impaired ability to relate/attach to the parents/guardians (previously: The patient has an impaired relationship with the parents)

Table 21: Comprehensively revised ENP practice guidelines version 3.0

Not included in the table are numerous terminological or content changes or revisions to individual ENP elements (e.g. characteristics, etiologies or interventions) that are assigned to multiple practice guidelines and/or do not affect a single practice guideline or nursing diagnosis in its entirety. In total, corresponding work can be quantified to more than 100 individual development activities. The majority of this was related to the level of ENP interventions. The following example illustrates the result of such selective further developments for a better understanding, which affect not only one, but usually several nursing diagnoses or practice guidelines. For instance, the intervention “Determine/carry out tissue glucose/blood glucose monitoring” shown here as an example is linked to the ENP nursing diagnoses “The patient is at risk of hypoglycemia due to **late dumping syndrome**” as well as “The patient is at **risk of hyper/hypoglycemia**”. Red elements in the table represent changes in terms of modified or newly added items:

Intervention 347: Determine/ carry out tissue glucose/blood glucose monitoring		
ID number	Detailed intervention	Explanatory text
8189	Carry out selective blood glucose monitoring	
8190	Blood glucose determination with Haemo-Glucotest using test strips for visual evaluation (without device)	Optical reading of the blood glucose value from a test strip without a meter. The values are determined by comparing the colors with a specified scale.
8191	With electronic measuring device and code strip	
8192	Using the laboratory	
23880	Carry out continuous tissue glucose monitoring (CGM)	
18063	Continuous automatic measurement (glucose monitoring)-Glucose measurement in subcutaneous fat tissue (CGM)	Synonym: continuous glucose monitoring, CGM. A method in which the tissue glucose level in the interstitial fluid (interstitial glucose) is measured at very close intervals by means of a sensor placed in the subcutaneous fatty tissue and transmitted to a reader, which may also be integrated in an insulin pump. In addition to the current glucose value, the glucose data of the last few hours are displayed graphically for each value check, and a trend is indicated showing the direction in which the glucose value is moving. CGM systems often contain warning functions that automatically warn of impending hyper- or hypoglycemia.
23881	Carry out tissue glucose monitoring using flash glucose monitoring (FGM)	
23882	Tissue glucose determination using flash glucose monitoring (FGM)	A method of determining tissue glucose levels in interstitial fluid (interstitial glucose) using a sensor usually attached to the upper arm and a reader. In addition to the current glucose value, the glucose data of the last few hours are displayed graphically for each value check, and a trend is indicated in which direction the glucose value is moving.
8193	Determine support services	
8194	Give guidance in self-monitoring of the tissue/blood glucose BG value	
23883	Support the determination of the tissue/blood glucose value	
8195	Take over control of BG tissue/blood glucose monitoring	
8196	Carry out BG tissue/blood glucose monitoring by laboratory assistant	
23884	Carry out calibration of the glucose meter/sensor	
Literature used for further development of the intervention		
Schlüter, S. (2013). Diabetestechnologie - Glukosemessung und Insulinpumpen. Diabetes aktuell, 11(6), pp. 266-269.		
Heinemann, L. & Freckmann, G. (2015). CGM Versus FGM; or, Continuous Glucose Monitoring Is Not Flash Glucose Monitoring. Journal of Diabetes Science and Technology, 9(5), pp. 947-950. doi: 10.1177/1932296815603528		
Ancona, P. et al. (2017). The performance of flash glucose monitoring in critically ill patients with diabetes. Critical Care and Resuscitation, 19(2), pp. 167-174.		
Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (IQWiG) (Ed.). (2015). Kontinuierliche interstitielle Glukosemessung (CGM) mit Real-Time-Messgeräten bei insulinpflichtigem Diabetes mellitus. Abschlussbericht. IQWiG-Berichte - NR. 289. Retrieved from https://www.iqwig.de/download/D12-01_Abschlussbericht_Kontinuierliche-Glukosemessung-mit-Real-Time-Messgeraeten.pdf (Accessed: 27.11.2017).		
Garg, S. K. & Akturk, H. K. (2017). Flash Glucose Monitoring: The Future Is Here. Diabetes Technology & Therapeutics, 19(S2), pp. S1-S3. doi: 10.1089/dia.2017.0098		

Table 22: Exemplary change documentation of the further development of the ENP intervention “Determine/carry out tissue glucose/blood glucose monitoring”

From the user's perspective, the revision of the software-based use of ENP is as follows:

Intervention 347 in ENP version 2.10	Intervention 347 in ENP version 3.0
<div style="border: 1px solid black; padding: 5px;"> <p>Blutzuckerkontrollen festlegen/durchführen</p> <p>Blutzuckerkontrollen durchführen</p> <ul style="list-style-type: none"> <input type="checkbox"/> Blutzuckerbestimmung mit Haemo-Glucotest <input type="checkbox"/> Mit elektronischem Messgerät und Codestreifen <input type="checkbox"/> Mithilfe des Labors <input type="checkbox"/> Kontinuierliche automatische Messung (Glukosemonitoring) <p>Unterstützungsleistung bestimmen</p> <ul style="list-style-type: none"> <input type="checkbox"/> Zur Selbstbestimmung des BZ-Werts anleiten <input type="checkbox"/> BZ-Kontrolle übernehmen <input type="checkbox"/> BZ-Kontrolle durch Laborassistentin durchführen </div>	<div style="border: 1px solid black; padding: 5px;"> <p>Gewebezucker- / Blutzuckerkontrollen festlegen/durchführen</p> <p>Punktuelle Blutzuckerkontrollen durchführen</p> <ul style="list-style-type: none"> <input type="checkbox"/> Blutzuckerbestimmung mittels visuell auszuwertenden Teststreifen (ohne Gerät) <input type="checkbox"/> Mit elektronischem Messgerät und Codestreifen <input type="checkbox"/> Mithilfe des Labors <p>Kontinuierliche Gewebezuckermessung durchführen (CGM)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Kontinuierliche automatische Glukosemessung im Unterhautfettgewebe (CGM) <p>Gewebezuckermessung mittels Flash Glucose Monitoring (FGM) durchführen</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gewebezuckermessung mittels Flash Glucose Monitoring (FGM) <p>Unterstützungsleistung bestimmen</p> <ul style="list-style-type: none"> <input type="checkbox"/> Zur Selbstbestimmung des Gewebe- / Blutzuckerwerts anleiten <input type="checkbox"/> Bei der Bestimmung des Gewebe- / Blutzuckerwertes unterstützen <input type="checkbox"/> Gewebe- / Blutzuckerkontrolle übernehmen <input type="checkbox"/> Gewebe- / Blutzuckerkontrolle durch Laborassistenz durchführen <input type="checkbox"/> Kalibrierung des Glukosemessgerätes /-sensors durchführen </div>

Table 23: Further development of the ENP intervention "Determine/carry out tissue glucose/blood glucose monitoring" from a user perspective

The 566 ENP practice guidelines available with version 3.0 (as of May 2019) are based on the evaluation of more than 5,900 publications in total. Of these, approximately 1,950 systematically researched publications alone were used between June 2017 and May 2019 to develop the definitions of ENP nursing diagnoses, as well as the content work for the version jump from ENP 2.10 to 3.0.

2.8 ENP version 3.0 to 3.1 (June 2019 to May 2020)

With the version change from ENP 3.0 to 3.1, mainly content-related aspects were revised or newly developed. In addition to the inclusion of two new practice guidelines in the ENP catalog, the nursing diagnostic part (diagnosis label, definition, characteristics, etiologies, resources) of an existing practice guideline was systematically revised as part of an academic qualification project. A total of 73 ENP practice guidelines benefited from selective changes or general further development work, such as the revision of a nursing intervention that is linked to several nursing diagnoses. In addition, several minor error corrections were made for ENP version 3.1, for example with regard to the linking of keywords to ENP nursing diagnoses (indexing) or the removal of redundant, equally worded items at the level of characteristics and etiologies. Two nursing diagnoses were revised in the wording for a clearer understanding, no ENP practice guideline was deactivated compared to the previous version 3.0. The

following tables list those ENP practice guidelines that were affected by the significant changes. Those practice guidelines that have been optimized by selective improvements will not be presented here⁶.

New ENP practice guidelines (n=2)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 1.4	LOE 1.4	1179	The patient is at risk of developing health damage due to self-neglecting behavior
LOE 1.4	LOE 1.4	1180	The patient is at risk of self-endangerment/danger to others due to disturbed impulse control

Table 24: New ENP practice guidelines in version 3.1

ENP practice guidelines revised in wording (n=2)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 1.4	LOE 1.4	350	The patient is at risk of local tissue damage due to intravenous/subcutaneous medication administration (previously: The patient is at risk of local tissue damage due to intravenous medication administration)
LOE 2.1	LOE 2.1	423	The patient is impaired in verbal communication due to cluttering (previously: The patient has impaired communication due to cluttering)

Table 25: ENP practice guidelines revised in wording in version 3.1

Comprehensively, systematically further developed ENP practice guidelines (n=1)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 1.4	LOE 2.1	611	The patient is at risk of dislocation due to osteosynthesis

Table 26: Comprehensively, systematically further developed ENP practice guidelines in version 3.1

Version 3.1 of ENP is based on nearly 6,000 publications; compared to the previous version 3.0, approximately 100 publications were evaluated for further development.

⁶ An automatically generated change documentation at single item level between ENP versions 3.0 and 3.1 is available on request.

2.9 ENP version 3.1 to 3.2 (June 2020 to June 2021)

ENP version 3.2 was finished in June 2021. The comprehensive systematic further development work at the technical-content level resulted in a total of nine new ENP practice guidelines as well as a new ENP category (inflammation/infection, subsumed under the tissue integrity class). A practice guideline was systematically revised within the framework of an academic qualification thesis on the nursing diagnostic level (nursing diagnosis, definition, characteristics, etiologies and resources) and subjected to a validation study (Hausherr, 2020). The wording of three further ENP nursing diagnoses was adapted to ensure their scope of meaning as well as their differentiation from other nursing diagnoses. One practice guideline was deactivated as part of the revisions, and its contents were transferred to one of the new ones. In addition, across the ENP catalog, numerous improvements were also made to a variety of general elements that affected more than a single practice guideline or nursing diagnosis, primarily in this case nursing interventions and their intervention specifications. In numerical terms, the ENP catalog has grown by 110 new characteristics, 103 new etiologies, 12 new resources, and 28 new nursing outcomes (including those items that are assigned to the new practice guidelines). The numerous and valuable feedbacks from users of the ENP nursing classification were again an essential driving force for all technical and content-related work. For the content development work from ENP version 3.1 to version 3.2, 234 publications were evaluated, so that the literature base of ENP now amounts to more than 6,200 entries. The following tables summarize the key changes. A higher level of detail is provided by an automatically generated change documentation between ENP versions 3.1 and 3.2 on the level of individual items, available on request.

New ENP practice guidelines (n=9)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 1.4	LOE 1.4	1041	The patient is at risk of complications due to an infectious tick bite
LOE 1.4	LOE 1.4	1182	The patient is impaired in communication [nursing problem without specification]
LOE 2.1	LOE 2.1	1183	The patient has category I pressure ulcer , there is the risk of skin damage to the epidermis
LOE 2.1	LOE 2.1	1184	The patient has puerperal mastitis , there is a risk of complications
LOE 2.1	LOE 2.1	1185	The patient has nonpuerperal mastitis , there is a risk of complications
LOE 1.4	LOE 1.4	1186	The patient has lochiostasis , there is the risk of infection
LOE 1.4	LOE 1.4	1187	The patient has an infection due to a tick bite
LOE 2.1	LOE 2.1	1188	The patient perceives a norm conflict due to a sexual preference disorder and suffers from it
LOE 2.1	LOE 2.1	1189	The patient feels a otherness ascribed by society due to the own sexual identity and suffers from it

Table 27: New ENP practice guidelines in version 3.2

ENP practice guidelines revised in wording (n=3)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 2.1	LOE 2.1	522	The patient has hypogalactia , there is a risk of infant malnutrition (previously: The patient at risk of infant malnutrition due to hypogalactia)
LOE 2.1	LOE 2.1	591	The patient has risk factors that favor the risk of thrombosis (previously: The patient has other risk factors that favor the risk of thrombosis)
LOE 3.2	LOE 3.2	857	The patient has category II-IV pressure ulcer , there is impaired wound healing (previously: The patient has a pressure ulcer, there is impaired wound healing)

Table 28: ENP practice guidelines revised in wording in version 3.2

Comprehensively, systematically further developed and validated ENP practice guidelines (n=1)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 2.1	LOE 3.1	634	The patient is impaired in the independent daily organization/organization of life due to memory disorders

Table 29: Comprehensively, systematically further developed and validated ENP practice guidelines in version 3.2

Deactivated ENP practice guidelines (n=1)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 1.4	LOE 1.4	511	The patient perceives a norm conflict due to a sexual orientation that deviates from the norm and suffers from it

Table 30: Deactivated ENP practice guidelines in version 3.2

Compared to the other groups in ENP, the total number of ENP nursing interventions decreased by a total of 43 compared to version 3.1 (2,675 nursing interventions in ENP 3.1 versus 2,632 nursing interventions in ENP 3.2), despite further development work being advanced here as well. This seemingly contradictory figure finds its explanation in the work that has taken place for ENP version 3.2 in addition to the merely content-related further development. One of these activities consisted in starting the systematic reduction of interventions in the ENP catalog that were redundant from a professional point of view. Thus, a total of about 50 ENP nursing interventions could be reduced and their thematic focus consolidated in one remaining intervention linked to all relevant nursing diagnoses in each case, without any qualitative loss of content or expected problems with regard to the use of ENP in software environments. This sporadic

occurrence of redundant interventions in ENP can be explained by a need in past times to assign different nursing outcomes to the same intervention in the context of different nursing diagnoses. In the past, it was necessary from a technical perspective to create an intervention with the same content several times, but this restriction, which is critical in terms of data analysis, has now been removed. The declared goal for the development agenda of ENP version 3.3 is therefore to eliminate all remaining redundancies at the intervention level.

A similar standardizing focus was adopted in the initial planning efforts to harmonize the wordings of ENP items across the entire classification system. The goal here is to create unambiguity and consistency in the terms and concepts used in ENP across all areas and groups, or to reduce ambiguity and redundant terms. At present, different terms with the same meaning or terms that cannot be clearly defined are often used in ENP for one and the same phenomenon. For example, in the group of causes for the phenomenon/disease of stroke, a number of synonymous or non-overlapping terms can be found, such as “stroke”, “apoplexy”, “apoplectic insult”, “cerebral vascular accident”, or “ischemic cerebral infarction”. The effort at this point is to establish standardization wherever possible and according to a systematic concept. First implementations of these adaptations are to be expected after the development of a corresponding concept for ENP version 3.3, but a final revision will presumably only be possible in one of the following versions.

Not planned well in advance, but all the more necessary for version 3.2, was the review of the entire ENP classification for the presence or currentness of all necessary elements to represent the nursing care situations of people who have COVID-19. The serious consequences of the worldwide Corona pandemic, which have posed and continue to pose immense challenges to the nursing profession in particular, made an examination of ENP in this regard unavoidable. Where necessary, missing or outdated elements in various ENP practice guidelines were added or revised so that adequate and differentiated nursing care illustration and care planning for affected persons are possible without restriction.

Another activity in the development of ENP version 3.2 was conducted with regard to the topic of gender mainstreaming, which is increasingly relevant in all areas of life. This strategic approach seeks to promote and achieve equality for all genders by always being sensitive to the different circumstances and interests of women, men and people with other gender identities (Grulich & Riegraf, 2020). A high degree of importance is attributed to gender mainstreaming, especially in the context of health care, and herewith also nursing care (cf. e.g. Achoumrar, 2020). The development team took this as an opportunity to review the entire ENP catalog across all areas for gender-specific aspects and items, and to adapt non-gender-neutral formulations as best as possible and express them in a gender-appropriate manner. Although the aim of this work was to identify and correct as many relevant items as possible without gaps, it cannot be ruled out that isolated formulations may have been overlooked in a nursing classification with a total of more than 20,000 individual items. Some examples of the changes made are given in the table below.

Previous wording (ENP version 3.1)	New wording (ENP Version 3.2)
Shame to address the complaints towards nurses or the physician (characteristics)	Shame to address the complaints towards professional nurses or the physician
Bei Entscheidungen den Betroffenen in eine aktive Rolle führen (Pflegeintervention)	Lead the affected person into an active role when making decisions
Akzeptiert die Andersartigkeit und findet in anderen Betroffenen Gesprächspartner (Pflegeziel)	Akzeptiert die Andersartigkeit und findet in anderen betroffenen Personen Gesprächspartner(innen)

Tabelle 31: Beispiele für genderneutrale Formulierungen in ENP Version 3.2

Finally, with the completion of ENP version 3.2, preliminary considerations and activities for the adaptation of the database structure were made, which primarily aim to simplify the implementation of the European Nursing care Pathways in hospital information systems and third-party software structures. The implementation of the structural changes to the ENP database is expected in one of the upcoming releases.

2.10 ENP version 3.2 to 3.3 (June 2021 to July 2022)

The final version of ENP version 3.3 was completed in July 2022. New additions include a total of five ENP practice guidelines. One of these newly developed ENP practice guidelines (The care receiver is at risk of withdrawal syndrome due to withdrawal from substances with dependence potential) is based on the foundation of an academic qualifying paper prepared as part of the ENP further development and accompanied by the ENP development team (Augustin, 2022). In addition to numerous selective further developments, which have sometimes also had a general impact on several ENP practice guidelines and in many cases are based on valuable feedback from users, a total of 19 ENP practice guidelines have been systematically revised on the basis of international literature research. In this context, another thesis was specifically concerned with the revision and further development of partial aspects of the already existing ENP practice guideline “The care receiver is at risk of infection from exogenous/endogenous germs due to a reduced immune defense” with a special focus on the effectiveness of a low-germ diet for infection prophylaxis in people with neutropenia (Werner, 2021). Refinements in wording to distinguish them more clearly from other content or to make their scope more specific were made in a total of eight ENP practice guidelines, usually accompanied by a comprehensive revision of their content. Finally, for lack of sufficient selectivity, an ENP practice guideline was deactivated, the contents of which can be found in thematically related nursing diagnoses. Described in numbers, in addition to the five new practice guidelines, a total of 183 new characteristics, 105 new etiologies, 11 new resources, and 50 new nursing outcomes were added to ENP version 3.3. The figures are less clear with regard to the nursing interventions and the intervention specifications, since the work started in the previous year to reduce redundant ENP nursing interventions from a technical point of view and to consolidate them in existing items was consistently continued⁷. This explains the initially supposedly small change of only 7 new nursing interventions in quantitative terms, which is distorted by the deactivation of numerous redundancies. However, the 665 intervention specifications newly added with ENP version 3.3 prove that numerous further development activities could

⁷ From a technical point of view, it was previously necessary to be able to assign the same nursing intervention in the context of different ENP nursing diagnoses to different nursing outcomes that were appropriate in the respective thematic context and to create them several times at database level. These IT-related restrictions are now resolved.

also be implemented at the level of nursing interventions. The significant changes at a superordinate level between ENP versions 3.2 and 3.3 are summarized in the following tables.

New ENP practice guidelines (n=5)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 2.1	LOE 2.1	1192	The patient is at risk of infection [nursing problem without specification]
LOE 2.1	LOE 2.1	1193	The patient is at risk of complications due to an entry/exit site of a percutaneous endoscopic gastrostomy/jejunostomy
LOE 3.1	LOE 3.1	1194	The patient has impaired consciousness due to delirium
LOE 3.1	LOE 3.1	1195	The patient is at risk of delirium [nursing problem without specification]
LOE 3.1	LOE 3.1	1196	The patient is at risk of withdrawal syndrome due to withdrawal from substances with dependence potential

Table 32: New ENP practice guidelines in version 3.3

ENP practice guidelines revised in wording (n=8)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 3.1	LOE 3.1	203	The patient is at risk of falls due to Parkinson's disease syndrome (previously: The patient has impaired postural control/balance due to Parkinson's disease, risk of falls)
LOE 2.1	LOE 2.1	208	The patient is at risk of contracture due to a spastic flexion and/or extension pattern (previously: The patient is at risk of contracture due to a spastic flexion pattern)
LOE 2.1	LOE 2.1	411	The patient is impaired in the ability to perceive and adequately process environmental stimuli , there is a risk of misinterpretation (previously: The patient is unable to adequately perceive and cognitively process environmental stimuli, there is a risk of misinterpretation)
LOE 3.2	LOE 3.2	574	The patient has a self-care deficit due to (non-organic) functional urinary incontinence (previously: The patient has a self-care deficit due to functional urinary incontinence)
LOE 2.1	LOE 2.1	698	The patient is at risk of metabolic imbalance due to renal impairment (previously: The patient is at risk of metabolic imbalance due to renal insufficiency)
LOE 3.1	LOE 3.1	819	The patient is at risk of relapse due to the desire to consume substances with dependence potential (previously: The patient feels a craving, a kind of compulsion to use psychotropic substances/addictive substances, there is a risk of relapse)
LOE 3.1	LOE 3.1	903	The patient has no/minimal ability to respond to external stimuli , there is impaired consciousness (previously: The patient shows no reaction to stimuli, there is impaired consciousness)
LOE 2.1	LOE 2.1	904	The patient has renal impairment/renal failure , there is a metabolic disorder (previously: The patient has renal impairment/kidney failure, there is a metabolic disorder)

Table 33: ENP practice guidelines revised in wording in version 3.3

Comprehensively, systematically further developed and validated ENP practice guidelines (n=19)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 3.2	LOE 3.2	36	The patient is at risk of skin damage due to radiation therapy
LOE 3.2	LOE 3.2	61	The patient is at risk of skin damage [nursing problem without specification]
LOE 3.2	LOE 3.2	63	The patient is at risk skin damage due to dry skin
LOE 3.2	LOE 3.2	160	The patient is at risk of pressure ulcers [nursing problem without specification]
LOE 2.1	LOE 2.1	180	The patient is impaired in mobility due to an altered body image
LOE 3.1	LOE 3.1	203	The patient is at risk of falls due to Parkinson's disease syndrome
LOE 2.1	LOE 2.1	207	The patient is at risk of developing spasticity
LOE 2.1	LOE 2.1	208	The patient is at risk of contracture due to a spastic flexion and/or extension pattern
LOE 1.4	LOE 1.4	211	The patient has a hyperextended head posture due to a spastic posture pattern , there is impaired range of motion
LOE 3.1	LOE 3.1	309	The patient is at risk of perceptual complications due to quantitative disorder of consciousness
LOE 3.2	LOE 3.2	331	The patient has a primary wound healing , there is a risk of impaired wound healing
LOE 2.1	LOE 2.1	341	The patient is at risk of infection from exogenous/endogenous germs due to a reduced immune defense
LOE 2.1	LOE 2.1	411	The patient is impaired in the ability to perceive and adequately process environmental stimuli , there is a risk of misinterpretation
LOE 3.2	LOE 3.2	569	The patient is at risk of skin damage due to hypersensitive/hyperreactive skin
LOE 3.1	LOE 3.1	637	The patient has withdrawal syndrome , there is a risk of complications
LOE 2.1	LOE 2.1	698	The patient is at risk of metabolic imbalance due to renal impairment
LOE 3.1	LOE 3.1	819	The patient is at risk of relapse due to the desire to consume substances with dependence potential
LOE 3.1	LOE 3.1	903	The patient has no/minimal ability to respond to external stimuli , there is impaired consciousness
LOE 2.1	LOE 2.1	904	The patient has renal impairment/renal failure , there is a metabolic disorder

Table 34: Comprehensively, systematically further developed and validated ENP practice guidelines in version 3.3

Deactivated ENP practice guidelines (n=1)

LOE related to the guideline	LOE related to the diagnosis	ID	ENP nursing diagnosis label
LOE 1.4	LOE 1.4	597	The patient has impaired arm mobility and sweats under the armpit , there is a risk of skin damage

Table 35: Deactivated ENP practice guidelines in version 3.3

Special mention should be made in the context of the technical development work for ENP version 3.3 of the intensive efforts to adapt the European Nursing care Pathways to a highly relevant complementary care topic: acupressure and acupuncture, which is not shown in the previous tables due to the general nature of the changes and the fact that they affect a wide range of clinical issues in ENP. Based on a comprehensive, systematic, and international literature review, this set of topics was developed and finds its representation primarily at the intervention level across the remarkable number of over 20 ENP practice guidelines. Thus, among other things, nursing-specific interventions for acupuncture on the ear, acupressure on the ear, acupressure on the body, and for instructing the person being cared for to perform acupressure independently were developed, always explicitly referring to the respective clinical context of the linked ENP nursing diagnosis (e.g., pain, fatigue, impaired sleep, etc.) with regard to, for example, the effective acupressure/acupuncture points or the technique to be used. An international publication on this topic is in the review process at the time of writing (August 2022).

The technical and content-related further developments of ENP version 3.3 compared to the previous version are based on the analysis, assessment and evaluation of more than 850 publications, so that the total literature base underlying the ENP practice guidelines has now exceeded 7,000.

Similar to the previous version jump from ENP 3.1 to ENP 3.2, the absolute number of interventions in the ENP catalog has increased only insignificantly with the current version 3.3. Once again, this figure does not reflect the actual content-related further development work, as the systematic reduction of professionally redundant but previously technically necessary content-related nursing interventions, which began in 2020, was consistently continued. Thus, in purely quantitative terms, the number of ENP interventions increased by only 8 interventions, but in fact 142 nursing interventions were newly developed and, in the process, 134 redundant nursing interventions were deactivated and their thematic focus consolidated in one remaining intervention linked to all relevant nursing diagnoses in each case. The work on the reduction of redundant interventions is almost completed with ENP version 3.3; only selective duplications remain, which will be addressed in the course of the upcoming work on ENP.

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