

# Co-producing peritoneal dialysis nursing sensitive indicators for quality care: a multinational consensus building design

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# Background

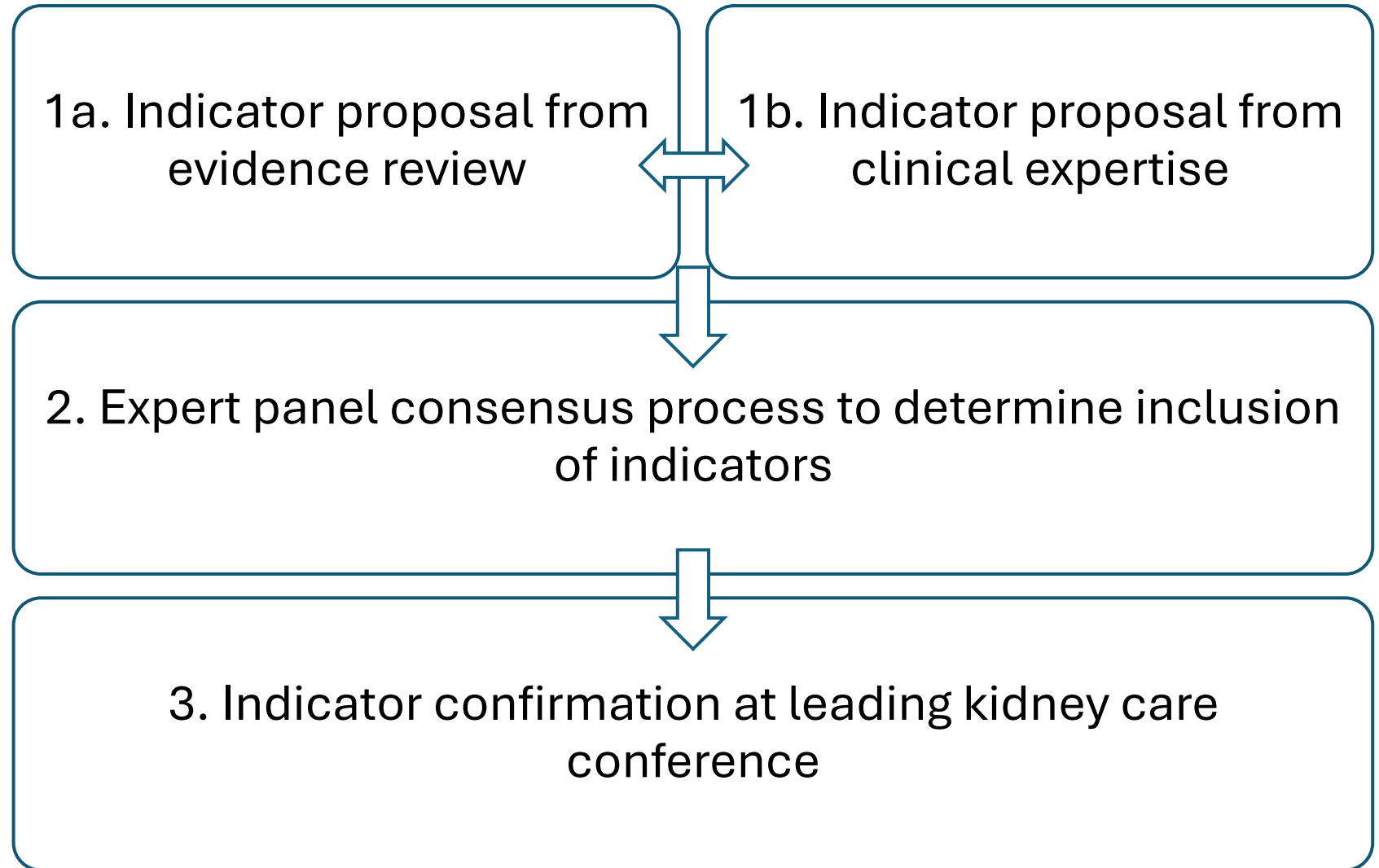
- Retention of nursing staff is a global challenge (World Health Organisation 2020), including in kidney care (Boyle et al. 2022);
- A focus on quality care and acknowledging the contribution of staff are two strategies for reducing staff turnover (Marufu et al. 2021);
- Nursing-sensitive indicators (NSI) can be used to measure the outcomes of nursing care (Heslop et al. 2014);
- Donabedian's (1988) framework is commonly used for conceptualising NSI:



# Background

- Common nursing-sensitive indicators (NSIs) include nurse staffing, mortality and nosocomial infections (Oner et al. 2020);
- NSIs have been developed for haemodialysis:
  - Chen et al. (2023) – 11 indicators
  - McIntyre et al. (2020) – 26 indicators
  - Gao et al. (2018) - 13 indicators
- Home dialysis quality indicators have been identified (Dubrofsky et al. 2020);
- Lack of NSI for peritoneal dialysis nursing.

# Developing the indicators



# Defining peritoneal dialysis nursing sensitive indicators

*A set of criteria and a way of measuring aspects of patient and family care that are most effected by the actions of the PD nurse*

(Redefined based on: Heslop et al. 2014, Joint Commission International, 2014; Nakrem et al., 2009)

# Peritoneal Dialysis Nursing Sensitive Indicators

## Structural

How the delivery of PD nursing services is organized and distributed, including qualification and number of PD nurses

## Process

The interactions between PD nurses and patients on PD and their families about delivery of PD care

## Outcomes

The effects of PD nursing care to patients on PD, their families and PD nurses

# PERITONEAL DIALYSIS NURSING SENSITIVE INDICATORS



## STRUCTURAL INDICATORS

- Evidence-based PD training programme
- PD nurse-to-patient ratio
- Home visit programme
- Acute PD nursing pathway
- Assisted PD
- Remote patient management programme
- Shared decision-making programme
- PD nurse training programme

## PROCESS INDICATORS

- Assessing fluid balance
- Measuring clinical signs
- Providing self-management support
- Assessing sleep quality
- Documenting progress
- Assessing nutritional status
- Assessing exit site
- Investigating peritonitis cause
- Referring for catheter complications
- Assessing bowel habits
- Developing person-centred care plans
- Educating for assisted PD

## OUTCOME INDICATORS

- PD prescription adequacy
- PD incidence
- Relatives' satisfaction levels
- Patient satisfaction levels
- Nurse satisfaction levels
- PD technique survival
- PD infection rates
- Percentage of nurses with kidney qualification

Indicators available via:

<https://www.edtnaerca.org/collaboration/in-dustry-partners>



# Structural: How PD nursing services are organised and distributed



Evidence-based  
PD training  
programme<sup>(1,2)</sup>

PD nurse-to-  
patient ratio<sup>(3-7)</sup>

Home visit  
programme<sup>(2,8)</sup>

Acute PD  
nursing  
pathway<sup>(9,10)</sup>

Assisted PD<sup>(11)</sup>

Remote patient  
management  
programme<sup>(2)</sup>

Shared decision-  
making  
programme<sup>(12)</sup>

PD nurse  
training  
programme<sup>(13)</sup>

# Process: interactions between PD nurses and patients on PD and their families



Assessing fluid balance<sup>(4,14)</sup>

Measuring clinical signs<sup>(4,14)</sup>

Providing self-management support<sup>(13,15)</sup>

Assessing sleep quality<sup>(16)</sup>

Documenting progress<sup>(4)</sup>

Assessing nutritional status<sup>(17)</sup>

Assessing exit site<sup>(18)</sup>

Investigating peritonitis cause<sup>(18)</sup>

Referring for catheter complications<sup>(18)</sup>

Assessing bowel habits<sup>(18)</sup>

Developing person-centred care plans<sup>(19)</sup>

Educating for assisted PD<sup>(15)</sup>

# Outcome: the effects of PD nursing care to patients on PD, their families and PD nurses



PD prescription  
adequacy<sup>(7,14)</sup>

PD incidence<sup>(11)</sup>

Relatives'  
satisfaction  
levels<sup>(19)</sup>

Patient  
satisfaction  
levels<sup>(4-6)</sup>

Nurse satisfaction  
levels<sup>(4, 13,19)</sup>

PD technique  
survival<sup>(11)</sup>

PD infection  
rates<sup>(4,11,20,21)</sup>

Nurses with a  
kidney  
qualification(%)<sup>(22)</sup>

# Summary

Nursing-sensitive indicators measure aspects of care that are most affected by the actions of the nurse;

Nursing-sensitive indicators offer a framework for benchmarking quality peritoneal dialysis nursing care;

These indicators can be used at macro, meso and micro levels to influence nursing practice and development.

Thank you for listening

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