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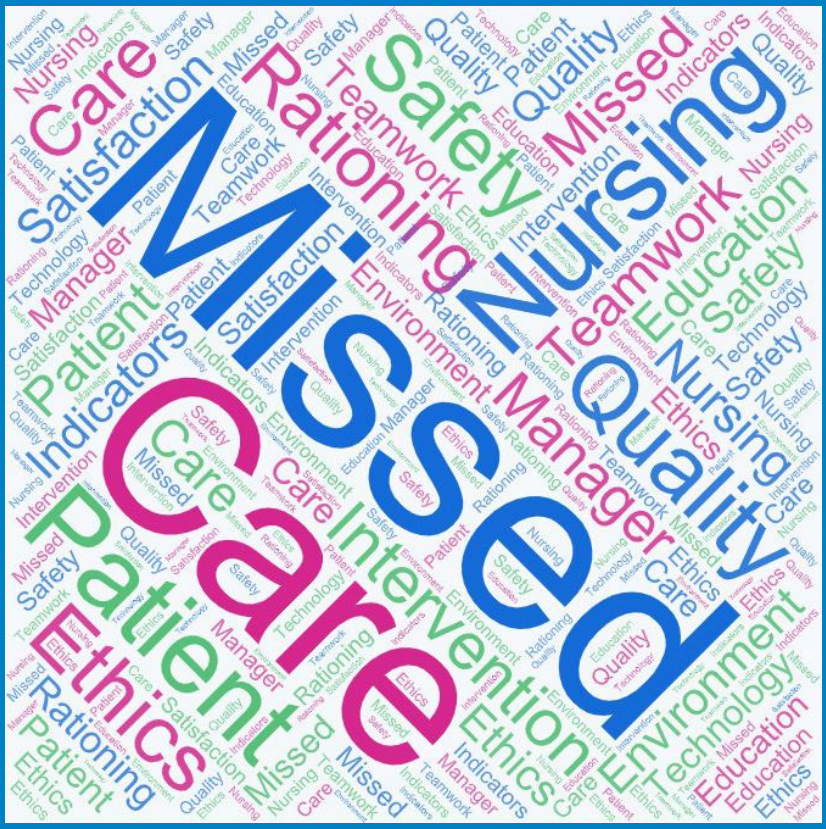


# PROMOTING PATIENT SAFETY THROUGH MINIMISING MISSED NURSING CARE

## A RECOMMENDED GOOD PRACTICE GUIDANCE FOR NURSE MANAGERS

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The RANCARE Consortium: Cost Action 15208 'Rationing: Missed Nursing care – An international and multidimensional problem' (2016–2020)

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*This document is available at RANCARE website https://www.rancare-action.eu/*



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## Reviewed by:

**IRIS MEYENBURG-ALTWARG**

President – European Nurse Directors Association

*'As we know, ongoing challenges in securing adequate level of nursing staffs in Europe results most of times with mixed level of nursing competencies and skills. Timely identification of missed nursing care is very much needed to ensure and maintain best of quality care, however the main challenge always remain as to know the indicators and factors.*

*This Guidance has clearly spelled out various methods to identify missed cares through variety of Indicators and Outcomes, also stressed upon its relevance and considerations to Nurse Managers. I sincerely appreciate all the research authors, RANCARE Consortium and last but not least, Rancare Chair Prof. Evridiki Papastavrou who has been instrumental to the successful achievement of this result.*

*I am sure this research would certainly help many of our health care colleagues. Would suggest to roll out a handy document for quick reference and to reach out extensively'.*

**JACQUELINE FILKINS**

Professor
Honorary President, ENDA
Hon. Fellow University of Cumbria

*'The value of this guide is the clarity and reasoned approach that brings together all areas which can lead to mistakes and omissions. It is not judgemental but gives guidance on how problems could be approached, measured and what steps need to be considered to avoid a repeat.*

*Although it is aimed as a guide for good practice for nurse managers, it is my view that it should reach a much wider audience and include decision-making bodies in the field of health care planning, funding and regulation.*

*It is of particular interest to read that where the work environment and professional as well as personal autonomy are valued, good leadership is more effective in managing the effects of work which has been left undone.*

*This valuable and robustly researched guide of good practice is, in my view, equally relevant for nurse managers in acute care settings as in homecare/community environments.*

*ENDA should be proud to wholeheartedly support this work and help to promote it widely'.*

## CONTENTS

TABLES

## EXECUTIVE SUMMARY

This document was developed as a result of a European Union COST Action project which aimed at facilitating discussion and increasing focus on the issue of missed or rationed nursing care (RANCARE Cost Action 15208 'Rationing: Missed Nursing care – An international and multidimensional problem', 2016–2020). Rationing of nursing care occurs when resources that should be available for nurses to carry out care activities, are insufficient to provide necessary care to all patients, resulting in care being implicitly prioritised, rationalised or missed. This phenomenon is now known as a result of work intensification which creates an environment where allocation of human, time and material resources directly related to care activity is not sufficient to meet care demands, for example, reduced staff numbers, skill mix variation not meeting the acuity related needs of patients, increased demands for care, or a changing patient profile. The results of these organisational policies are that nurses on a shift are forced to implicitly prioritise, ration or miss care and to work harder with less support. It is also known that such work environments not only negatively impact on nurses' capacity to deliver care effectively, but also affect capacity of organisations to retain staff, and contributes to patient morbidity and mortality.

Nursing leaders and managers in clinical settings are also faced with the challenges resulting from work intensification, because they are tasked with managing nursing staff and bed availability. Mandates to maintain clinical governance and patient safety often come within set human and resource targets, regardless of increasing care demands. Despite these directives, nurse managers have an opportunity to ensure that their concerns are heard, by monitoring and reporting situations on a shift that may result in care left undone.

In order to do this, nurse managers need to understand the antecedents of missed nursing care and to engage with available evidence to understand:

- the levels of missed or rationed care within their units,
- the patient, nurse and organisational outcomes associated with missed care,
- the resources or interventions required to enable the delivery of high quality, safe patient care and minimize missed nursing care.

This document is intended to provide nurse managers with an outline of relevant data sources which examine and contextualise the impact of missed care. Critically it contains a number of suggestions for data gathering and interventions which may help them to support and give nurses some orientations to make effective decisions when faced with challenges or shortages. It is not prescriptive, rather it should be seen as a practical guidance designed to support managers and nurses in clinical leadership positions in all care settings, to address the antecedents of missed and rationed care.

This document provides some orientations related to organisational policies that may help prevent or minimise missed care events within their authority. These recommendations include information on staffing levels and skill mix, audit and quality measurement tools, and education and training interventions.

This document is likely to be of interest to some of the following:

- National Nursing Associations
- Regulatory bodies on nursing and health
- Nurse Managers at all levels
- Health professionals
- Hospital managers, health care institutions
- Quality departments
- Nurse educators and their professional associations
- Nursing students (undergraduate and postgraduate levels)
- Nurses in clinical leadership positions

# 1 OVERVIEW

This document was developed by the members of Workgroup 4 (Educational issues and training) who are involved with the European Union (EU) funded project, COST Action CA15208, aimed at facilitating discussion and increasing focus on the issue of missed and rationed nursing care (RANCARE Cost Action 15208 'Rationing: Missed Nursing care – An international and multidimensional problem'). The action is hosted by Cyprus University of Technology and managed by Professor Evridiki Papastavrou and a management committee (made up of two representatives per country) (*https://www.rancare-action.eu/*).

RANCARE includes more than 50 health care professionals from 30 countries in Europe, America and Oceania. The research work is organized into four working groups (WG) as follows:

- WG1 on Conceptualization, Organizational, Methodological Issues
- WG2 on Evidence-based interventions and intervention design
- WG3 on Ethical Issues of Rationing of nursing care
- WG4 on Educational issues and Training

This document was developed by Working Group four (WG4) to support nursing managers and clinical nursing leaders in their efforts to create secure practice environments and to try to manage and minimise the clinical incidences and professional anxiety created as a result of missed or rationed nursing care. Missed nursing care has negative implications for the nursing profession, for patients and for healthcare organisations. For the nursing profession, missed nursing care breaches nursing standards of practice (Harvey et al., 2017); for patients, it is associated with poor clinical outcomes for patients (Papastavrou et al., 2014a; Bail & Grealish, 2016); and for organisations, quality assurance is threatened (Schubert et al. 2013; Jangland et al. 2018; Willis et al., 2018).

The primary goal of this document is to give to nursing managers one more helpful tool in selecting the best management and leadership strategies to reduce levels of missed or rationed nursing care through supportive workplace environments. This aims to be a challenging and

inspiring document, but ultimately, a realistic and practical instrument for nurse managers to adopt in any setting and across all health services.

The aims of this guidance document are to:

- stimulate awareness among nurses and nurse managers about patient safety, missed care and its impacts;
- provide a guidance for reducing episodes of missed care by providing a set of indicators; and,
- stimulate ideas and priorities for quality improvement and research.

The objectives of this guidance is to support and facilitate appropriate and effective decision making by nurse managers around resource allocation, staff wellbeing, care provision and patient safety which in turn should result in reduced levels of missed or rationed care across health services.

# 2 BACKGROUND

## 2.1 Missed nursing care explained

The concepts of missed nursing care (Kalish, 2006; Kalish et al., 2009), unfinished care (Jones et al., 2015), nursing care left undone or omitted (Ausserhofer et al., 2013), along with the rationing of nursing care (Schubert et al., 2007; Jones, 2015; Papastavrou et al., 2014a,b) continue to be discussed in the health literature with increasing frequency since first noted through the work of the International Hospital Outcomes Research Consortium (IHORC) in 2001 (Aiken et al., 2001). Missed, rationed or unfinished care is frequently associated with insufficient resources (mainly time or staffing levels) or supports, which compel nurses to make in-the-moment decisions about which patient care is urgently needed and which can be left undone if there is no time or not enough staff (Harvey et al., 2017).

Missed or rationed nursing care is defined and understood through models proposed by both Kalisch et al. (2009) and Schubert et al. (2007) and occurs in response to organisational triggers or circumstances that negatively affect nurses' capacity to carry out care activity. Factors which result in care being missed are not simply a reduction in workforce allocations or material resource availability but also factors related to the work environment itself (Aiken et al., 2013; Ausserhofer et al., 2014; Schubert et al., 2013). Measures of the quality of the work environment in which nurses work, includes attitude of the team towards their colleagues, and towards their work, nursing leadership (both at unit level and hospital level), and the experience and mix of the staff, related to work required. Where nursing leadership is seen to be effective and staffing levels appropriate to ward/department activity, patients report higher satisfaction levels and reduced levels of reported adverse events (Wong et al., 2013). Supportive leadership is linked to higher nurse motivation and to better patient outcomes (Aiken et al., 2012; Bruyneel et al., 2015). Effective nursing leadership has also been associated with resilience in the workforce, where, even in challenging times, whether through work intensification or high levels of emotional stress, the team copes better

than in those areas where there is poor nursing leadership (Hegney et al., 2019). However, even in areas with effective leadership, where there is consistently high level of work intensification and ongoing care rationalisation, burnout of staff and increased levels of clinical incidents have been reported (Rees et al., 2015; Harvey et al., 2017).

Instruments to measure the prevalence of missed and rationed care, include the Tasks Undone scale (TU-7 or the extended version TU-13 as used in the RN4CAST study) (Aiken et al., 2001; Ball et al., 2014), the Basel Extent of Rationing of Nursing Care (BERNCA) (Schubert et al., 2007), the Perceived Implicit Rationing of Nursing Care (PIRNCA) (Jones, 2014), and the MISSCARE instrument (Kalisch & Williams, 2009).

Findings from these studies, identify that in the acute care sector, between 55% and 98% of nurses report episodes of missed or rationed care (Jones et al., 2015; Henderson et al., 2016; Harvey et al., 2018), with empirical evidence also showing confirmed adverse outcomes for patients (Aiken et al., 2018; Ausserhofer et al., 2013; Bail & Grealish, 2016; Ball et al., 2018; Kalisch et al., 2012; Lucero et al., 2010; Schubert et al., 2008; Schubert et al., 2009; Schubert et al., 2013). Evidence of missed nursing care in community and residential care facilities is also now emerging (Gilbert & Jeong-Ah, 2018; Phelan et al., 2018). Lower levels of rationing are associated with better outcomes for patients (Papastavrou et al., 2014a; Schubert et al., 2008; Ball et al., 2018). Conversely, negative patient outcomes include increased patient falls and infections, medication errors, higher mortality levels, lower reported levels of quality of care, and lower patient satisfaction.

The patient safety and quality of care implications of patient care left undone or rationed care are widely discussed, along with the impact on nurse well-being. Higher levels of care left undone are associated with higher levels of nurse burnout, intention to leave, and dissatisfaction with the job and the profession (Ausserhofer et al., 2013; Ball et al., 2016; Kalisch et al., 2011). In addition, nurses may experience an ethical burden as a result of leaving care undone. They report feelings of guilt and moral distress associated with taking decisions which ultimately compromise patient care (Papastavrou et al., 2014b; Harvey et al., 2017). At an organizational

level nursing staff turnover rates also increase, and patient satisfaction levels fall. Patient satisfaction, an acknowledged measure of quality of care, is known to be impacted by even low levels of care omissions (Kalisch et al., 2012).

## 2.2 Nurse manager influence on missed or rationed nursing care

In this section the areas of nurse manager influence are explored briefly in relation to the available evidence. Nurse managers at unit and hospital level have responsibilities in relation to staffing levels, skill mix, support, leadership and advocacy on behalf of the team. All of these responsibilities are relevant to the nurse manager's role in minimizing missed nursing care events. However, it is also known that sometimes the system is such that nurse managers find it difficult to advocate for nurses, particularly in cases where there are significant austerity measures in place (Karanikolos et al., 2013; Willis et al., 2017). Greater transparency around missed care, effective leadership skills and supportive relationships with staff can help reduce missed care (McCauley et al., 2020).

Research now shows that missed nursing care is prevalent across all European and OECD countries (Aiken et al., 2013; Ausserhofer et al., 2014; Schubert et al., 2013). Evidence shows that where the practice environment is positive, the levels of care left undone are more effectively managed (Ball et al., 2014). Moreover, a positive work environment in which nurses are afforded a high level of professional and personal autonomy, feelings of value and support are engendered. In these cases, good leadership has been seen to contribute to less staff illness, improved resilience and coping with unpredictable situations, and good patient outcomes (Rees et al., 2015). Thus, effective teamwork is an essential element in counterbalancing the effects of care, missed or rationed (Yanchus et al., 2017) Thus, good leadership at all levels contributes to positive interventions to create enhanced working environments, lower levels of missed care, higher levels of patient safety, higher quality of nursing care and an overall increase in patient satisfaction (Lake & Friese, 2006; Aiken et al., 2012).

Streamlining care processes and activities have been embedded in hospital systems since the early 1980's (Georgescu, 2011). The aim was

to reduce the amount of indirect work the nurse was to do, affording more time at the bedside (Ausserhofer et al., 2014). In nursing, the view of 'success' of such activity is divided, with questions around its efficacy being raised, particularly in work intensification where nurses are known to be working harder with less, meaning less time at the bedside and increased incidences of missed nursing care. For nurse managers, this tension presents its challenges, knowing that organizational targets must be met, but that missed nursing care is evident. It is often left to the nurse managers to make decisions about how best to manage workload and staffing, and what skills mix is required to support optimum patient safety (Henderson et al., 2016). A focus on skill mix including both nurse assistant grades and administration staff might help reduce the levels of non-nursing work carried out by nursing staff (Jacob et al., 2015).

Lower levels of care left undone can be found in in which nurses work less overtime (Bruyneel et al., 2015). Nurses working for ≥12 hours (are more likely to report poor or failing patient safety, lower quality of care, and more care activities left undone (Griffiths et al., 2014). Griffiths et al. (2014) outlines that the use of nurse overtime working to address staffing shortages may result in reduced quality of care overall. The use of nurse overtime should be considered by nurse managers with due attention paid to potential unintended consequences, related poor performance and burnout of nurses as a result of exhaustion (Brunetto & Teo, 2013).

Reduced patient to nurse ratios are associated with increased care quality and better patient satisfaction (Aiken et al., 2012). Ball et al (2014) suggests the use of a nurse-rated assessment of 'missed care' as an early warning measure to identify wards with inadequate nurse staffing. The use of innovative and reliable nurse staffing planning tools could be adopted by nurse managers to ensure the workforce meets the needs of the patients in the unit.

By paying attention to nurses' concerns, managers may be better placed to understand levels of missed care (McCauley, 2020). Evidence suggests that in healthcare missed nursing care is commonplace, but the phenomenon often goes unacknowledged by nurses (Kalisch et al., 2009). If nurses do not highlight the issue within their workplaces there is

a danger that frequently missed care could become the norm, with some nursing work disappearing entirely (Bagnasco et al, 2017). Nurse leaders can assist in making explicit the issue of missed care within the workplace. Where nurses feel empowered and encouraged to pass on information between shifts about care left undone or rationed, episodes of missed care can be addressed by the incoming nurse. Effective teamwork and open communication around the issues can help reduce the frequency of care being missed (Srulovici &d Drach-Zahavy, 2017; Bragadottir et al., 2017; Kalisch et al., 2013). Supportive management and effective teamwork may equally help alleviate guilt and moral distress felt by nurses who cannot meet all their patients' needs.

## 2.3 Nurse manager and decision-making. Information technology (IT) tools

Nurse managers make decisions within their field of responsibility which can impact either positively or negatively on levels of missed nursing care in units and organisations. Often however, managers work within organisational confines with pre-defined numbers and skill mix. It is imperative that nurse managers also consider their responsibilities in regarding professional standards of practice and patient safety when communicating with organisational managers (Alleyne & Jumaa, 2007). Also they can be helped by the share-decision-making model that was based on the principles of accountability, equity, ownership, and partnership, and designed to support staff members in right decision-making at the point of service (Golanowski et al., 2007).

Health information systems assist health professionals to process, store and distribute information in order to inform the decision-making process. Information technology (IT) based tools aim to contribute to data sharing that can assist in the improvement of quality, efficiency and effectiveness of the health system, enabling the implementation of research, with evidence to support teaching. In modern health care systems nurse managers engage with IT interfaces to assist them in their work to varying degrees. It is generally accepted that the effective use of such tools can enhance management practices in healthcare if used

effectively. Nurse managers should utilise IT systems to draw on data that supports evidence of missed and rations care, and to use this information when making decisions regarding care activity requirements.

Nurse Managers should also be aware of the team environment in the ward/department as this will influence decision making processes. Brave decisions are those that managers make, when attitudinal issues in the team clash with resourcing issues. In these situations, nurse leaders need to be able to balance the debate with decision-making is informed and in accordance with all factors impacting on the situation. Opportunities should be provided for nurses to engage with hospital level decision making through committee membership or project work (Daly et al., 2014).

# 3 DEVELOPMENTAL PROCESS

This section will outline the process of inquiry used to come up with a set of recommendations from which this guide for nurse managers was developed.

## 3.1 Developmental process

This document was developed by the team in WG4 of the RANCARE research consortium. The framework was that of reductionist discussion and collaboration across a series of meetings and events related to RANCARE activity as outlined below.

TABLE 1: PROCESS OF CONSULTATION IN DEVELOPING THE GUIDANCE DOCUMENT

| *Date of activity* | *Activity* |
|---|---|
| February 2017 | RANCARE Conference, Cyprus<br>• Presentation of an idea regarding the development of a guidance document for nurse managers to support them in their work to address the problem of missed care. This followed a discussion about the value of good leadership in regard to minimizing missed nursing care. |
| October 2017 | RANCARE working groups meeting, Prague<br>• The writing group representing WG4 was agreed upon – Prof. Raul Cordeiro (Portugal) and including Olga Riklikiene (Lithuania), Marcia Kirwan (Ireland), Cristóbal Rengel Diaz and Maria Pilar Fuster (Spain).<br>• A review of the literature was commenced |
| January 2018 | Meeting of the writing group, Barcelona<br>• Proposed outline and structure<br>• Draft sections developed by group through first half of 2018 |
| September 2018 | RANCARE WG4 workshop, Malaga, Spain<br>• The draft guidance document was presented to the working group and nurses from industry, with discussion from members of the workshop |
| October 2018 | RANCARE Training School, Dublin, Ireland<br>• The draft was presented and discussed with nurses and educators from university and industry attending the school. |
| October 2018 | RANCARE Management Committee and Core Group Meeting, Porto, Portugal.<br>• The document was presented and ratified by RANCARE management. |
| February 2019 | RANCARE local workshop, Paphos, Cyprus<br>• The updated document was presented to academic and nursing representatives for discussion<br>• Development of a validation questionnaire given to professionals attending the workshop (n=15), the results from which are described below. |

## 3.2 The validation instrument

In February 2019 a pilot questionnaire (Appendix 1) was developed which aimed to validate the relevance of indicators identified and contained in following tables (Tables 1 to 5).

The questionnaire (with fifty-nine items) was developed through discussion with a wider expert team and was distributed to 15 nurses attending the workshop in Paphos, Cyprus in February 2019.

These items were based upon the recommendations and themes that emerged from the consultations and factors considered relevant for nurse managers. The questionnaire was developed in English and then translated into Greek. The translation into Greek resulted in a total of 54 items. Each item was rated on a Likert scale of between 1 and 4, where 1 was considered "not important" and 4 was considered "very important".

All items were rated as important with an average level of 3.7 points. The less scored items obtained a level of 3.3 and the most scored ones a level of 4.0 points.

TABLE 2: RESULTS OF THE QUESTIONNAIRE

| *Topic* | *Scores* |
|---|---|
| Nurse staffing levels and skill mix | Scored above average and only 3 of them were scored below the mean value by one or more respondents: *Consider nurses hours/patient day (3.3), Consider individual nurse workload (3.5), Consider nurse experience levels (3.7).* |
| Nursing leadership | Scored above average and only 2 of them were scored below the mean value by one or more respondents: *Consider a measure of leadership capability using appropriate tools (3.5), Adopt measures of decision-making to increase accountability, ownership, equity and partnership within the team (3.7).* |
| Quality of the practice environment | Scored below the mean value by two respondents: *Consider a measure of the quality of the Practice Environment using an appropriate tool (3.5).* |
| Assess, Plan, Implement and Evaluate | Scored above average and only 4 of them were scored below the mean value by one or more respondents: *Consider use of taxonomy (ICNP, NANDA (3.5), Consider a theoretical framework for decision making at all levels (3.4), Consider an ethical framework for decision making (3.7), Evaluate if skill mix and delegation decisions are appropriate (3.5).* |
| Patient satisfaction | Scored above average. |
| Adverse incidents occurrence – Patient | Scored above average and only one of them were scored below the mean value by one or more respondents: *Consider analysis of safety culture at unit and organisational level (3.3).* |

| *Topic* | *Scores* |
|---|---|
| Length of stay | Scored above average and only one of them were scored below the mean value by one or more respondents: *Consider an organisational trigger for episodes of extended length of stay (3.5).* |
| Quality of care | Scored below the mean value by one respondent: *Consider an overall rating scale for quality of care measurement (3.7).* |
| Job satisfaction, Intent to leave and Burnout levels | Scored above average and only one of them were scored below the mean value by one or more respondents: *Consider a validated measurement tools for nurses satisfaction levels (3.9).* |
| Turnover rates | Scored above average |
| Mortality level | Scored above average and two of them were scored below the mean value by one or more respondents: *Consider ongoing analysis of mortality statistics (3.5), Consider review of cases to identify (3.9).* |
| Bed occupancy rate | Scored above average and only one of them were scored below the mean value by one or more respondents: *Consider monitoring occupancy rates and associated workloads with a view to increasing staff numbers (3.8).* |
| Adverse incidents occurrence | Scored above average and all of them were scored below the mean value by one or more respondents: *Consider risk management protocol in the organisation and associated training for nurses (3.7), Consider training around clinical protocols (3.7), Review and analysis of Adverse incident data with particular emphasis on missed care episodes (3.7), Consider Root Cause Analysis of missed care incidents (3.7), Consider analysis of safety culture at unit and organisational level (3.7).* |
| Complaint rates | Scored below the mean value by one respondent: *Consider formal review of complaints for episodes of missed care (3.6).* |

All items were seen as important in the development of a safe working environment where patient safety was central to practice with all items scoring average or above average.

# 4 THE GUIDANCE DOCUMENT

## 4.1 The format

This document is prepared for the support of nurse managers and clinical leaders to address episodes of missed nursing care within their units. It is made up of quick reference tables for easy referencing. It is intended as a reference including useful tips and reminders. It is neither prescriptive nor exhaustive and is intended to prompt nurse managers on what contributes to missed care, how it impacts and what if anything can be done to address the individual points.

## 4.2 Missed nursing care indicators

In this section we present tables which may help to prevent missed care in the first instance, but also to identify and make explicit missed care events when they occur.

- Table 1 – INDICATORS TO PREVENT MISSED CARE
  - In this section the relevance of each indicator to the nurse manager is briefly noted along with factors which might be consider
- Table 2 - FACTORS TO CONSIDER IN PREVENTING MISSED CARE
  - In this section the care delivery cycle is broken down, with relevance and considerations noted.
- Table 3 – IDENTIFYING POTENTIAL OR ACTUAL MISSED CARE THROUGH PATIENT OUTCOMES
  - This section provides nurse managers with the guidance in regard to what indicators would support the identification of missed nursing care that is relevant to patients
- Table 4 – IDENTIFYING POTENTIAL OR ACTUAL MISSED CARE THROUGH NURSE OUTCOMES
  - This section provides nurse managers with the guidance in regard to factors that inhabit the effective management of nursing staff well-being, retention and recruitment.

- Table 5 – IDENTIFYING POTENTIAL OR ACTUAL MISSED CARE THROUGH ORGANIZATIONAL OUTCOMES
  - This section provides nurse managers with the guidance in regard to organizational factors relating to risk management and effective risk management compliance.

The table below (Table 3) describes the known indicators for missed nursing care events.

TABLE 3: INDICATORS FOR MISSED NURSING CARE

| *INDICATORS TO MONITOR MISSED CARE* | | |
|---|---|---|
| *ORGANIZATIONAL STRUCTURE* | | |
| *INDICATOR* | *RELEVANCE for nurse managers* | *CONSIDERATIONS for nurse managers to address indicator* |
| Nurse staffing levels and skill mix | • Staffing levels linked to missed care in the literature.<br>• Organization must define safe staffing for each unit.<br>• Where levels are not appropriate nurse managers are responsible for reallocation, for replacement staff, etc.<br>• Where no replacement staff are available a structured system must be in place to high light the increased risks to patients. | • Ensure staffing levels in accordance with organisational or national guidelines.<br>• Workforce planning takes into account patient acuity and dependency level.<br>• To consider the nurse to patient ratio.<br>• To consider nurse's hours/patient day.<br>• To consider individual nurse workload.<br>• To consider skill mix (nurse to healthcare assistant ratio).<br>• To consider nurse experience levels.<br>• To consider nurse education levels. |
| Nursing leadership | • Effective nurse leadership linked to better practice environment and reduced levels of missed care.<br>• Executive level involvement of nurses in the organisation.<br>• Nurse leadership at all levels throughout the organisation.<br>• Nurses involved in decision-making at all levels. | • To consider leadership training for nurse managers.<br>• To consider a measure of leadership capability using appropriate tool such as Practice Environment Scale (PES) of Nursing Work Index (NWI) (perception of nurse visibility and leadership).<br>• Adopt measures as Shared Decision-Making (SDM) to increase accountability, ownership, equity and partnership within the team. |
| Quality of the practice environment | • Links between practice environment and rates of missed care. | • To consider a measure of the quality of the Practice Environment using an appropriate tool such as PES of Nursing Work Index (NWI). |

Table 4 includes suggestions for nurse managers to consider when trying to reduce or prevent missed care within their units.

TABLE 4: FACTORS TO CONSIDER IN PREVENTING MISSED NURSING CARE

| *FACTORS TO CONSIDER IN PREVENTING MISSED CARE* | | |
|---|---|---|
| *CARE DELIVERY PROCESS* | | |
| *CARE DELIVERY CYCLE* | *RELEVANCE* | *CONSIDERATIONS for nurse managers to address the indicators* |
| Assess | • Nurses assess the needs of their patients and based on this assessment make decisions about necessary care provision.<br>• Structured assessment should be made using appropriate evidence based tools.<br>• Person centred care should be a primary focus with patient involvement in assessment and planning. | • To consider a formal record system for nursing data.<br>• To consider training for nurses about effective clinical decision making.<br>• To consider use of taxonomy (ICNP, NANDA International).<br>• To consider a theoretical framework for decision making at all levels.<br>• To consider an ethical framework for decision making.<br>• Evaluate if skill mix and delegation decisions are appropriate.<br>• To consider the impact of the extended role of nurses in the organisation.<br>• To consider IT training for nurses.<br>• To consider a validated measurement tool to measure missed care episodes.<br>• To consider a Missed Care Incident investigation process which explores cause, decisions taken, reason.<br>• Ensure a supportive, non-punitive environment for nurses. |
| Plan | • Based on patient assessment nurses plan the delivery of care. At this point nurses make decisions and prioritise care provision. If nurse's workload or unit staffing level does not allow them to provide all necessary care, they will make decisions about which care to provide. This decision-making may result in missed care episodes. | |
| Implement | Nurses deliver care according to previous assessment, planning and decision-making. They may delegate tasks to healthcare assistants. Essential patient care may be omitted at this point due to lack of time, poor decision-making, experience levels or lack of leadership. | |
| Evaluate | Evaluation of care delivery may reveal care that has been missed, omitted, unfinished or rationed. | |

The following tables (Tables 5, 6 and 7) contain suggestions for nurse managers to help identify missed care through monitoring known patient nurse and organizational outcomes.

TABLE 5: MONITORING PATIENT OUTCOMES

| *IDENTIFYING POTENTIAL OR ACTUAL MISSED CARE THROUGH PATIENT OUTCOMES* | | |
|---|---|---|
| *PATIENT OUTCOMES* | | |
| *OUTCOME* | *RELEVANCE for Nurse Managers* | *TO CONSIDERATIONS for nurse managers to help identify missed care and improve outcomes* |
| Patient satisfaction | Patient satisfaction is an important quality of care indicator which can provide information on<br>• Expectations met<br>• Patient centred care<br>• Quality of care<br>• Cost effectiveness<br>• Participation of patient in care decisions. | • To consider a validated measurement tool for patient satisfaction.<br>• To consider patient satisfaction as a continuous quality improvement initiative.<br>• Evaluate patient involvement on decision making process at all levels. |
| Adverse incidents occurrence | Adverse incident occurrence rates or near misses can reveal deficits in the care processes and are an important indicator of quality of care. They can provide evidence of missed care along with the impact on the patient. They can be seen within organisations by senior managers as an impetus for change. | • To consider risk management protocol in the organisation and associated training for nurses.<br>• To consider training around clinical protocols.<br>• Review and analysis of Adverse incident data with particular emphasis on missed care episodes.<br>• To consider Root Cause Analysis of missed care incidents.<br>• To consider analysis of safety culture at unit and organisational level. |
| Length of stay | Patient Length of stay is an important indicator of quality of care and patient safety. Extended lengths of stay can be associated with adverse incident occurrence and therefore may be associated with missed care events. | • To consider overview processes for length of stay monitoring.<br>• To consider an organisational trigger for episodes of extended length of stay.<br>• Review cases for episodes of missed care. |
| Quality of care | Patient assessment of Quality of Care is an important outcome for consideration. | To consider an overall rating scale for quality of care measurement. |
| Missed care | Missed care episodes can indicate reduce quality in care provision and implies that all of patients' needs were not met. | • To consider a validated measurement tool to measure missed care episodes.<br>• To consider a Missed Care Incident investigation process which explores cause, decisions taken, reason. |

TABLE 6: MONITORING NURSE OUTCOMES

| *IDENTIFYING POTENTIAL OR ACTUAL MISSED CARE THROUGH NURSE OUTCOMES* | | |
|---|---|---|
| *NURSE OUTCOMES* | | |
| *OUTCOME* | *RELEVANCE for nurse managers* | *TO CONSIDERATIONS for nurse managers to help improve nurse outcomes* |
| Job satisfaction | Nurse job satisfaction is recognised as an important outcome for nurses. It is linked to staff wellbeing, and reflective of the organisational approach to nursing.<br>Nurse job satisfaction is linked to quality of care. | • To consider a validated measurement tools for nurses satisfaction levels.<br>• To consider satisfaction with Continuing Professional Development (CPD) System.<br>• To consider Lifelong learning opportunities for nurses.<br>• To consider nurse involvement in Committees, WG at unit and organisational level.<br>• To consider how the nursing voice is heard at executive level.<br>• To consider formal measurement of staff empowerment.<br>• To consider turnover rates and associated costs to the organisation.<br>• To consider schemes to retain experienced staff.<br>• To consider recognition of valued staff (professional recognition, involvement, incentives) within the organisation.<br>• To consider career pathways and progression pathways for nurses within the organisation.<br>• To consider use of validate measures of nurse burnout levels such as MBI.<br>• To consider staff wellbeing programme within the organisation (counselling, mindfulness, group work).<br>• To consider teaching hospital status as a magnet for staff. |
| Intention to leave | Intention to leave is an important nurse outcome which reflects the nurse's wellbeing, and satisfaction with his/her role and place within the organisation. This outcome is relevant to nurse managers who are concerned with maintaining a stable workforce, retaining experienced staff for continuity of care provision.<br>Intention to leave is linked to quality of care. | |
| Burnout levels | Burnout levels of nursing staff are strongly associated with quality of care, job satisfaction and intention to leave. Staff morale and wellbeing are important To considerations for managers.<br>Burnout levels impact on nurses ability to make effective decisions, which may result in episodes of missed or unfinished care. | |

TABLE 7: MONITORING ORGANISATIONAL OUTCOMES

| *IDENTIFYING POTENTIAL OR ACTUAL MISSED CARE THROUGH ORGANIZATIONAL OUTCOMES* | | |
|---|---|---|
| *ORGANIZATIONAL OUTCOMES* | | |
| *OUTCOME* | *RELEVANCE for nurse managers* | *TO CONSIDERATIONS For nurse managers in relation to organisational outcomes* |
| Turnover rates | Nurse turnover rates are of concern to nurse managers and are often reflective of nurse outcomes described earlier. High turnover can result in experienced nurses leaving an organisation, which forces more inexperienced staff to practice at a level beyond their expertise. This can result in poor decision making in relation to patient care with a potential for higher levels of missed care. | • To consider monitoring turnover rates at both organisation and unit level with the aim of identifying patterns and addressing the cause.<br>• To consider formal exit interviews for staff leaving the organisation. |
| Mortality level | Mortality statistics are a recognised quality indicator in healthcare organisations. Higher than expected mortality levels may be reflective of poor quality care provision, possibly inclusive of missed care episodes. | • To consider ongoing analysis of mortality statistics.<br>• To consider review of cases to identify missed care. |
| Bed occupancy rate | Bed occupancy rates are reflective of the flow of patients in hospital/health system and the workload of staff. Therefore, this is a concern for all nurse managers. Higher nurse workloads are associated with higher levels of missed care. | • To consider reallocation of Human Resources according to occupancy rates.<br>• To consider monitoring occupancy rates and associated workloads with a view to increasing staff numbers. |
| Adverse incident occurrence | *As above in patient outcomes.* Adverse incident rates are an important To consideration for managers which may stem from missed care episodes. | • As above in patient outcomes. |
| Complaint rates | Complaint rates are an important indicator of quality of care and may be associated with episodes of missed care. | • To consider formal review of complaints for episodes of missed care. |

## 5 LIMITATIONS

There were some limitations to the development of this guideline. Firstly, the questionnaire had to be translated into a number of different languages. Careful review of the translation was required in order to maintain consistency over the survey. Secondly, the level of nurse managers responsibility and competence is different in various countries, which meant that a generic statement had to be developed taking into account all variations. This may mean that some statements may not be quite what is required in some countries, however, we believe we have developed the statements in a way that they can be adapted.

# 6 ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| BERNCA | Basel Extent of Rationing of Nursing Care |
| CPD | Continuing Professional Development |
| ICNP | International Classification for Nursing Practice |
| IHORC | The International Hospital Outcomes Research Consortium |
| IT | Information technology |
| MBI | Maslach Burnout Inventory |
| MISSCARE | Missed nursing care |
| NANDA International | formerly the North American Nursing Diagnosis Association |
| NWI | Nursing Work Index |
| PES | Practice Environment Scale |
| PIRNCA | The Perceived Implicit Rationing of Nursing Care instrument |
| RANCARE | Missed nursing care COST ACTION project |
| RN4CAST | Nurse Forecasting in Europe |
| SDM | Shared Decision-Making |
| TU-7, TU-13 | Tasks Undone scales |
| WG | Working group |

## 7 GLOSSARY

**Adverse events:** any injury caused as a result of treatment and care.

**Error:** an act of commission (doing something wrong) or omission (failing to do the right thing) that leads to an undesirable outcome or significant potential for such an outcome in a patient.

**Quality:** quality in nursing can be defined as the "degree of excellence" in nursing care.

**Nursing quality indicator:** a measure of the quality and safety outcomes of nursing care.

**Missed or rationed nursing care:** A care that occurs in response to organisational triggers or circumstances that negatively affect nurses' capacity to carry out care activity.

**Nursing-sensitive indicators:** identify structures of care and care processes, both of which in turn influence care outcomes; nursing-sensitive indicators are distinct and specific to nursing, and differ from medical indicators of care quality.

**Patient safety:** freedom from accidental or preventable injuries produced by medical care. Practices or interventions that improve patient safety are those that reduce the occurrence of preventable adverse events.

# 8 REFERENCES USED IN THE DOCUMENT AND FOR GUIDANCE TO READERS

This section provides the references used in this document but also outlines them in a way that provides readers with a research and reference resource for those wishing to read further about the phenomenon of missed and rationed care.

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# 9 APPENDIX 1 – QUESTIONNAIRE FOR MANAGERS


## PROMOTING PATIENT SAFETY THROUGH MINIMISING MISSED NURSING CARE: A RECOMMENDED GOOD PRACTICE GUIDANCE FOR NURSING MANAGERS

### QUESTIONNAIRE FOR NURSING MANAGERS

Nurse managers are ideally placed to monitor and influence levels of compromised nursing care within their units.

As nurse leaders in clinical settings they too are faced with insufficient resources and can lead the way in decision-making processes which protect the quality and safety of patient care provision.

To develop a good practice guidance for nurse managers we define a set of indicators related with indicators and factors to prevent missed care (organizational structure and care delivery process), and to identifying potential or actual missed care through outcomes (patient outcomes, nurse outcomes and organizational outcomes).

We ask you to answer the following questionnaire in order to help us to better define indicators.

## PART I – INDICATORS AND FACTORS TO PREVENT MISSED CARE

### ORGANIZATIONAL STRUCTURE

A – Related to the indicator **"Nurse staffing levels and skill mix"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| A1 | Ensure staffing levels in accordance with organisational or national guidelines | | | | |
| A2 | Have a workforce planning who takes into account patient acuity and dependency level | | | | |
| A3 | To consider the nurse to patient ratio | | | | |
| A4 | To consider nurses hours/patient day | | | | |
| A5 | To consider individual nurse workload | | | | |
| A6 | To consider skill mix (nurse to healthcare assistant ratio) | | | | |
| A7 | To consider nurse experience levels | | | | |
| A8 | To consider nurse education levels | | | | |

B – Related to the indicator **"Nursing leadership"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| B1 | To consider leadership training for nurse managers | | | | |
| B2 | To consider a measure of leadership capability using appropriate tools | | | | |
| B3 | Adopt measures of decision-making to increase accountability, ownership, equity and partnership within the team | | | | |

C – Related to the indicator **"Quality of the practice environment"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| C1 | To consider a measure of the quality of the Practice Environment using an appropriate tool | | | | |

## CARE DELIVERY PROCESS

D – Related to the indicators **"Assessment, Plan, Implement and Evaluate"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| D1 | To consider a formal record system for nursing data | | | | |
| D2 | To consider training for nurses about effective clinical decision making | | | | |
| D3 | To consider use of taxonomy (ICNP, NANDA) | | | | |
| D4 | To consider a theoretical framework for decision making at all levels | | | | |
| D5 | To consider an ethical framework for decision making | | | | |
| D6 | Evaluate if skill mix and delegation decisions are appropriate | | | | |
| D7 | To consider the impact of the extended role of nurses in the organisation | | | | |
| D8 | To consider IT training for nurses | | | | |
| D9 | To consider a validated measurement tool to measure missed care episodes | | | | |
| D10 | To consider a Missed Care Incident investigation process which explores cause, decisions taken, reason. | | | | |
| D11 | Ensure a supportive, non-punitive environment for nurses. | | | | |

## PART II – IDENTIFYING POTENTIAL OR ACTUAL MISSED CARE THROUGH OUTCOMES

PATIENT OUTCOMES

E – Related to the indicator **"Patient satisfaction"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| E1 | To consider a validated measurement tool for patient satisfaction | | | | |
| E2 | To consider patient satisfaction as a continuous quality improvement initiative | | | | |
| E3 | Evaluate patient involvement on decision making process at all levels | | | | |

F – Related to the indicator **"Adverse incidents occurrence"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| F1 | To consider risk management protocol in the organisation and associated training for nurses | | | | |
| F2 | To consider training around clinical protocols | | | | |
| F3 | Review and analysis of Adverse incident data with particular emphasis on missed care episodes | | | | |
| F4 | To consider Root Cause Analysis of missed care incidents | | | | |
| F5 | To consider analysis of safety culture at unit and organisational level | | | | |

G – Related to the indicator **"Length of stay"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| G1 | To consider overview processes for length of stay monitoring | | | | |
| G2 | To consider an organisational trigger for episodes of extended length of stay | | | | |

H – Related to the indicator **"Quality of care"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| H1 | To consider an overall rating scale for quality of care measurement | | | | |

## NURSE OUTCOMES

I – Related to the indicators **"Job satisfaction, Intent to leave and Burnout levels"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| I1 | To consider a validated measurement tools for nurses satisfaction levels | | | | |
| I2 | To consider satisfaction with Continuing Professional Development (CPD) System | | | | |
| I3 | To consider Lifelong learning opportunities for nurses | | | | |
| I4 | To consider nurse involvement in Committees, WG at unit and organisational level. | | | | |
| I5 | To consider how the nursing voice is heard at executive level | | | | |
| I6 | To consider formal measurement of staff empowerment | | | | |
| I7 | To consider turnover rates and associated costs to the organisation | | | | |
| I8 | To consider schemes to retain experienced staff | | | | |
| I9 | To consider recognition of valued staff (professional recognition, involvement, incentives) within the organisation | | | | |
| I10 | To consider career pathways and progression pathways for nurses within the organisation | | | | |
| I11 | To consider use of validate measures of nurse burnout levels | | | | |
| I12 | To consider staff wellbeing programme within the organisation (counselling, mindfulness, group work) | | | | |
| I13 | To consider teaching hospital status as a magnet for staff | | | | |

## ORGANIZATIONAL OUTCOMES

J – Related to the indicators **"Turnover rates"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| J1 | To consider monitoring turnover rates at both organisation and unit level with the aim of identifying patterns and addressing the cause. | | | | |
| J2 | To consider formal exit interviews for staff leaving the organisation | | | | |

L – Related to the indicators **"Mortality level"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| L1 | To consider ongoing analysis of mortality statistics | | | | |
| L2 | To consider review of cases to identify | | | | |

M – Related to the indicators **"Bed occupancy rate"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| M1 | To consider reallocation of human resources according to occupancy rates | | | | |
| M2 | To consider monitoring occupancy rates and associated workloads with a view to increasing staff numbers | | | | |

N – Related to the indicator **"Adverse incidents occurrence"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| N1 | To consider risk management protocol in the organisation and associated training for nurses | | | | |
| N2 | To consider training around clinical protocols | | | | |
| N3 | Review and analysis of Adverse incident data with particular emphasis on missed care episodes | | | | |
| N4 | To consider Root Cause Analysis of missed care incidents | | | | |
| N5 | To consider analysis of safety culture at unit and organisational level | | | | |

O – Related to the indicator **"Complaint rates"** mark (**X**) the degree of importance on a scale of 1 to 4 where 1 means "Not important" and 4 means "Very Important":

| | *Item* | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|
| O1 | To consider formal review of complaints for episodes of missed care | | | | |

Thank you!

# 10 APPENDIX 2 – CHECKLIST FOR THIS GUIDANCE DOCUMENT

## REVIEW OF THE RANCARE GUIDANCE DOCUMENT "PROMOTING PATIENT SAFETY THROUGH MINIMISING MISSED NURSING CARE: A RECOMMENDED GOOD PRACTICE GUIDANCE FOR NURSING MANAGERS" USING THE RIGHT CHECKLIST[1]

| *SECTION/TOPIC* | *NO* | *ITEM* | *PAGE* | *INCLUDED/ COMMENTS* |
|---|---|---|---|---|
| | | *BASIC INFORMATION* | | |
| Title/subtitle | 1a | Identify the report as a guideline, that is, with "guideline(s)" or "recommendation(s)" in the title. | Front page | Yes, however the title says it is a guidance |
| | 1b | Describe the year of publication of the guideline | Front page | Yes |
| | 1c | Describe the focus of the guideline, such as screening, diagnosis, treatment, management, prevention or others. | 8 | Yes |
| Executive summary | 2 | Provide a summary of the recommendations contained in the guideline. | 8, 9 | Yes |
| Abbreviations and acronyms | 3 | Define new or key terms, and provide a list of abbreviations and acronyms if applicable | 27 | Glossary |
| Corresponding developer | 4 | Identify at least one corresponding developer or author who can be contacted about the guideline | Front page, 8 | Yes |

[1] *Chen Y, Yang K, Marušić A, Qaseem A, Meerpohl JJ, Flottorp S, Akl EA, Schünemann HJ, Chan ESY, Falck-Ytter Y, Ahmed F, Barber S, Chen C, Zhang M, Xu B, Tian J, Song F, Shang H, Tang K, Wang Q, Norris SL; for the RIGHT (Reporting Items for Practice Guidelines in Healthcare) Working Group. A Reporting Tool for Practice Guidelines in Health Care: The RIGHT Statement. Ann Intern Med. 2017;166(2):128-132.*

| *SECTION/TOPIC* | *NO* | *ITEM* | *PAGE* | *INCLUDED/ COMMENTS* |
|---|---|---|---|---|
| | | *BACKGROUND* | | |
| Brief description of the health problem(s) | 5 | Describe the basic epidemiology of the problem, such as the prevalence/ incidence, morbidity, mortality, and burden (including financial) resulting from the problem | 10 | Yes |
| Aim(s) of the guideline and specific objectives | 6 | Describe the aim(s) of the guideline and specific objectives, such as improvements in health indicators (e.g., mortality and disease prevalence), quality of life, or cost savings. | 9 | Yes |
| Target population(s) | 7a | Describe the aim(s) of the guideline and specific objectives, such as improvements in health indicators (e.g., mortality and disease prevalence), quality of life, or cost savings. | 9, 10 | Yes |
| | 7b | Describe any subgroups that are given special consideration in the guideline | 8 | Yes |
| End- users and settings | 8a | Describe the intended primary users of the guideline (such as primary care providers, clinical specialists, public health practitioners, program managers, and policy-makers) and other potential users of the guideline. | 8 | Yes |
| | 8b | Describe the setting(s) for which the guideline is intended, such as primary care, low- and middle-income countries, or in-patient | 8 | Yes |
| Guideline development groups | 9a | Describe how all contributors to the guideline development were selected and their roles and responsibilities (e.g., steering group, guideline panel, external reviewer, systematic review team, and methodologists). | 16–18 | The process of developing the guidance has been detailed in this document |
| | 9b | List all individuals involved in developing the guideline, including their title, role(s) and institutional affiliation(s). | Front page, 8 | Yes |

| *SECTION/TOPIC* | *NO* | *ITEM* | *PAGE* | *INCLUDED/ COMMENTS* |
|---|---|---|---|---|
| | | *EVIDENCE* | | |
| Healthcare questions | 10a | State the key questions that were the basis for the recommendations in PICO (population, intervention, comparator, and outcome) or another format as appropriate. | 10–17 | Yes, this has been addressed in the background |
| | 10b | Indicate how the outcomes were selected and sorted. | 16, 17 | |
| Systematic reviews | 11a | Indicate whether the guideline is based on new systematic reviews done specifically for this guideline or whether existing systematic reviews were used. | 28–38 | Not applicable, however, a literature review based upon the RANCARE collective knowledge has been provided in the background. References and resources has been supplied |
| | 11b | If the guideline developers used existing systematic reviews, reference these and describe how those reviews were identified and assessed (provide the search strategies and the selection criteria, and describe how the risk of bias was evaluated) and whether they were updated. | | Not applicable |
| Assessment of the certainty of the body of evidence | 12 | Describe the approach used to assess the certainty of the body of evidence. | 16–18 | Yes, this has been described |

| *SECTION/TOPIC* | *NO* | *ITEM* | *PAGE* | *INCLUDED/ COMMENTS* |
|---|---|---|---|---|
| | | *RECOMMENDATIONS* | | |
| Recommen-dations | 13a | Provide clear, precise, and actionable recommendations. | 19–25 | Provided |
| | 13b | Present separate recommendations for important subgroups if the evidence suggests that there are important differences in factors influencing recommendations, particularly the balance of benefits and harms across subgroups. | | This has been described |
| | 13c | Indicate the strength of recommendations and the certainty of the supporting evidence. | 17–19 | A scoring and feedback to RANCARE researchers was used |
| Rationale/ explanation for recommen-dations | 14a | Describe whether values and preferences of the target population(s) were considered in the formulation of each recommendation. If yes, describe the approaches and methods used to elicit or identify these values and preferences. If values and preferences were not considered, provide an explanation. | 16 | |
| | 14b | Describe whether cost and resource implications were considered in the formulation of recommendations. If yes, describe the specific approaches and methods used (such as cost-effectiveness analysis) and summarize the results. If resource issues were not considered, provide an explanation. | | This was not addressed |
| | 14c | Describe other factors taken into consideration when formulating the recommendations, such as equity, feasibility and acceptability | 17 | Yes |
| Evidence to decision processes | 15 | Describe the processes and approaches used by the guideline development group to make decisions, particularly the formulation of recommendations (such as how consensus was defined and achieved and whether voting was used). | 17, 18 | Yes |

| *SECTION/TOPIC* | *NO* | *ITEM* | *PAGE* | *INCLUDED/ COMMENTS* |
|---|---|---|---|---|
| | | *REVIEW AND QUALITY ASSURANCE* | | |
| External review | 16 | Indicate whether the draft guideline underwent independent review and, if so, how this was executed, and the comments considered and addressed. | 3, 18 | Ongoing review across the whole year at a variety of locations and contexts |
| Quality assurance | 17 | Indicate whether the guideline was subjected to a quality assurance process. If yes, describe the process. | 17, 18 | Yes |
| | | *FUNDING, DECLARATION AND MANAGEMENT OF INTEREST* | | |
| Funding source(s) and role(s) of the funder | 18a | Describe the specific sources of funding for all stages of guideline development. | 2, 8 | Yes |
| | 18b | Describe the role of funder(s) in the different stages of guideline development and in the dissemination and implementation of the recommendations. | 2, 8 | Yes |
| Declaration and management of interest | 19a | Describe what types of conflicts (financial and non-financial) were relevant to guideline development. | | Nil noted |
| | 19b | Describe how conflicts of interest were evaluated and managed and how users of the guideline can access the declarations. | | Not applicable |
| | | *OTHER INFORMATION* | | |
| Access | 20 | Describe where the guideline, its appendices, and other related documents can be accessed. | Front page | Yes |
| Suggestions for further research | 21 | Describe the gaps in the evidence and/or provide suggestions for future research. | 28 | Yes – References and resources |
| Limitations of the guideline | 22 | Describe any limitations in the guideline development process (such as the development groups were not multidisciplinary or patients' values and preferences were not sought), and indicate how these limitations might have affected the validity of the recommendations. | 25 | Yes |


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# PROMOTING PATIENT SAFETY THROUGH MINIMISING MISSED NURSING CARE

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