

Transitions of Care



■ ■ ■ **Technical Series on Safer Primary Care**



**World Health
Organization**

Transitions of Care: Technical Series on Safer Primary Care
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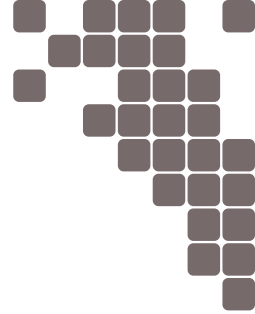
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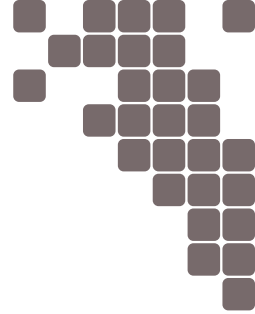
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Preface

Safer Primary Care

Health services throughout the world strive to provide care to people when they are unwell and assist them to stay well. Primary care services are increasingly at the heart of integrated people-centred health care in many countries. They provide an entry point into the health system, ongoing care coordination and a person-focused approach for people and their families. Accessible and safe primary care is essential to achieving universal health coverage and to supporting the United Nations Sustainable Development Goals, which prioritize healthy lives and promote well-being for all.

Health services work hard to provide safe and high quality care, but sometimes people are inadvertently harmed. Unsafe health care has been recognized as a global challenge and much has been done to understand the causes, consequences and potential solutions to this problem. However, the majority of this work up to now has focused on hospital care and there is, as a result, far less understanding about what can be done to improve safety in primary care.

Provision of safe primary care is a priority. Understanding the magnitude and nature of harm in primary care is important because most health care is now offered in this setting. Every day, millions of people across the world use primary care services. Therefore, the potential and necessity to reduce harm is very considerable. Good primary care may lead to fewer avoidable hospitalizations, but unsafe primary care can cause avoidable illness and injury, leading to unnecessary hospitalizations, and in some cases, disability and even death.

Implementing system changes and practices are crucial to improve safety at all levels of health care. Recognizing the paucity of accessible information on primary care, World Health Organization (WHO) set up a Safer Primary Care Expert Working Group. The Working Group reviewed the literature, prioritized areas in need of further research and compiled a set of nine monographs which cover selected priority technical topics. WHO is publishing this technical series to make the work of these distinguished experts available to everyone with an interest in *Safer Primary Care*.

The aim of this technical series is to provide a compendium of information on key issues that can impact safety in the provision of primary health care. It does not propose a “one-size-fits-all” approach, as primary care is organized in different ways across countries and also often in different ways within a given country. There can be a mix of larger primary care or group services with shared resources and small services with few staff and resources. Some countries have primary care services operating within strong national support systems, while in other countries it consists mainly of independent private practices that are not linked



or well-coordinated. The approach to improving safety in primary care, therefore, needs to consider applicability in each country and care setting.

This technical series covers the following topics:

Patients

- Patient engagement

Health workforce

- Education and training
- Human factors

Care processes

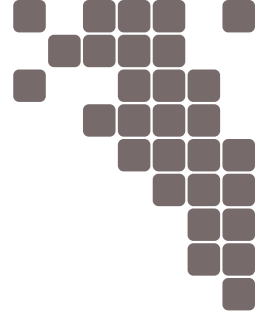
- Administrative errors
- Diagnostic errors
- Medication errors
- Multimorbidity
- Transitions of care

Tools and technology

- Electronic tools

WHO is committed to tackling the challenges of patient safety in primary care, and is looking at practical ways to address them. It is our hope that this technical series of monographs will make a valuable and timely contribution to the planning and delivery of safer primary care services in all WHO Member States.





1 Introduction

1.1 Scope

People are vulnerable when they move between different parts of the health care system. Care transitions threaten patient safety as they can increase the possibility of losing critical clinical information and require an increased degree of coordination. Primary care has a central role to play in improving transitions of care, which requires a multifaceted approach.

This monograph first defines transitions of care before examining approaches to improve safety during transitions. It describes how effective transitions of care require attention to both clinical and non-clinical issues, such as the patient's cognitive and functional status, housing, transport and support from families, carers and social services. Key areas for improvement include an increased focus on the needs of patients and their families and carers, improved communication with patients and between health care providers across settings, the need for recognition of care transition as an integral component of care coordination.

1.2 Approach

To compile information for this monograph, World Health Organization (WHO) sought the advice of experts in the field recommended by the Safer Primary Care Expert Working Group and reviewed relevant research and the published literature.

International experts in delivering safe primary care provided feedback, shared examples of strategies that have worked well around the world and gave practical suggestions about potential priorities for the WHO Member States to improve the safety of primary care services.

1.3 Defining transitions of care

In medical circles, the term "clinical handover" is used to describe the transfer of care from one health care professional to another. However, the concept of clinical handover is limited in its capacity to capture the broad range of issues involved with the transfer of a patient and their care responsibilities from one part of the health care system to another. It is very focused on the role of the health care professional and does not acknowledge the role of the patient and their needs.

Transitions of care refers to the various points where a patient moves to, or returns from, a particular physical location or makes contact with a health care professional for the purposes of receiving health care. This includes transitions between home, hospital, residential care settings and consultations with different health care providers in out-patient facilities.



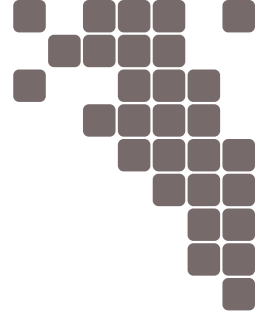
The term “transitions of care” is broader than clinical handover because it encompasses the clinical aspects of care transfer and other factors, such as the views, experiences and needs of the patient.

There is no globally accepted definition of transitions of care. The American Geriatrics Society defines transitions of care as:

“a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location. Representative locations include (but are not limited to) hospitals, sub-acute and post-acute nursing facilities, the patient’s home, primary and specialty care offices, and long-term care facilities.

Transitional care is based on a comprehensive plan of care and the availability of health care practitioners who are well-trained in chronic care and have current information about the patient’s goals, preferences, and clinical status. It includes logistical arrangements, education of the patient and family, and coordination among the health professionals involved in the transition. Transitional care, which encompasses both the sending and the receiving aspects of the transfer, is essential for persons with complex care needs” (1).





2 Transitions of care

Transitions of care are an integral part of a patient's journey throughout a health care system. Managing transitions effectively from the primary care into hospital care and from hospital into primary care are essential. Transitions between hospitals and primary care settings are recognized as high-risk scenarios for patient safety (2). The impacts of problems identified at the primary care interface(s) in the literature include (3):

- increase in mortality
- increase in morbidity (temporary or permanent injury or disability)
- increase in adverse events
- delays in receiving appropriate treatment and community support
- additional primary care or emergency department visits
- additional or duplicated tests or tests lost to follow-up
- preventable readmissions to hospital
- emotional and physical pain and suffering for service users, carers and families
- patient and provider dissatisfaction with care coordination

Similar issues can likely arise during transitions between primary care and other parts of the health care system.

Transitions from one care setting to the next are often accompanied by changes in health status. Patients transferred between health care sectors may have a new diagnosis, a new treatment or a change in functional status that affects their ability to manage their own conditions outside of the health care setting. Older people with complex health issues are most likely to undergo multiple transitions of care and are at the highest risk for adverse events and safety incidents (4).

The patient's journey through the health care system can involve a number of interfaces between primary, community and hospital care. The constant in these transitions is the patient, and their families and carers. Thus, it is imperative that the patient's role and responsibilities are considered central to any strategies that support safe and effective transitions of care. Transitions of care are an integral part of patient care, and it requires sufficient resources to ensure effective care transition and coordination.



3 Potential solutions

3.1 Useful interventions

There is no easy solution to providing safer care transitions. A range of strategies are needed. Both large- and small-scale interventions have been tested at the macro (health care system), meso (health service organization) and micro (service delivery) levels. The target groups for these potential solutions vary and include people within a specific geographical area, those with a particular disease or disability and people with specific care needs.

Interventions that may be beneficial include (3):

- standardizing documentation and agreeing on which information should be included in referral and discharge documents
- discharge planning with agreed criteria and protocols
- improving the quality and timeliness of discharge documentation
- implementing effective medication reconciliation practices
- conducting timely and appropriate patient follow-ups, including telephone calls and home visits
- improving the effectiveness and timeliness of clinical handovers between clinicians
- establishing primary care hotline to hospital emergency departments
- assigning care coordinators or case managers to people with complex needs
- increasing the involvement of primary care physicians
- educating and supporting patients, families and carers

These interventions can be considered when developing an evidence-based toolbox. The exact tools used, at which stage and by whom, depends on a number of variables, including patient needs.

The need to transfer a patient should be determined by the patient's health condition, but this may not be the situation in reality. Issues such as hospital overcrowding, lack of appropriate services in the community and economic pressures all determine when and where patients are transferred (5).

Determinants of the appropriate site of care and subsequent decisions about transfer of care involve clinical, functional and social aspects of the patient's illness. The patient's medical condition(s), potential for rehabilitation, decision-making capacity and social support systems must be taken into account (6).

An objective of a well-organized primary care service would be to prevent unnecessary or inappropriate transitions of care. However, non-clinical issues



often influence the decision of care transition, so it is crucial that these issues are considered when developing policies and programmes in this area.

Factors beyond the clinical determinants that may impact on transitions of care include:

- patient cognitive status
- patient activity level and functional status
- suitability of the patient's home (e.g. cleanliness, stairways, location)
- availability of support from carers and family
- ability to obtain medications and health care and social services
- availability of appropriate transportation

Systematically identifying patients who are most likely to be at risk of a poor transition of care enables resources to be more specifically targeted. Although there are many identification tools, none are completely accurate or comprehensive, but they can be useful for identifying patients in need of more in-depth assessments and tailored interventions. Examples of the criteria used in tools include length of stay, previous admissions or hospital attendance, acuity of admission, co-morbidities and number of medications.

Patients from different cultural groups may face additional challenges during care transitions due to language and cultural barriers (7). This may also be the case for people with low health literacy.

A meta-analysis found that the most successful strategies to improve transitions of care were communication, and relationship and process strategies, particularly those focusing on coordination of care. Interventions that received the highest rating from patients included strategies to enhance relationships between health care providers and patients (8).

Transition of care is a complex set of processes. The risk of errors need to be minimized and checks need to be put in place to mitigate the impact of failures that may still happen. Strategies to minimize risk include (9):

- complying with nationally agreed guidelines
- agreeing on terminology used between health care providers and care settings
- standardizing information transfers (e.g. discharge summaries and their delivery, irrespective of where they were generated or who is to receive them)
- establishing tracking systems for diagnostic and follow-up tests, referrals and appointments
- using simple checklists
- robust discharge planning

Discharge planning is typically described as the development of an individualized plan for a patient to ensure that they leave hospital at an appropriate time with proper referral arrangements to ensure a smooth transition from one level of care to another (10). Discharge planning seeks to enhance the efficiency and quality of care





by ensuring that patients are discharged in a timely manner. Delayed discharge has been associated with adverse events, such as readmissions, loss of independence (especially among older people) and hospital-acquired infections (11).

3.2 Example: medication reconciliation

An intervention that has been found to be effective and which can be implemented across health care systems, regardless of their structure, size and funding, is medication reconciliation. The target group includes all patients, but particularly those on multiple medications.

Medication errors are a common safety issue. More than 40% of medication errors are believed to result from inadequate reconciliation in handoffs during hospital admission, transfer and discharge. Among these errors, about 20% are believed to result in harm (12).

Many of these errors can be averted by medication reconciliation, which is defined as the process of comparing a patient's medication orders to all the medications the patient has been taking. Medication reconciliation also looks at discontinued medication, previous medications and medications added at the hospital. It should be done at every transition of care where new medications are ordered or existing orders are rewritten.

In simplistic terms, the process of medication reconciliation involves identifying current medications, listing medications to be prescribed, comparing the medications on the lists, making clinical decisions based on the comparison and explaining the new list to the patient and health care professionals. The exact strategies may differ depending on the care context. However, performing medication reconciliation at every transition point can reduce adverse drug events and prevent hospital admissions (13).

Patients need to be fully engaged and empowered to advocate for themselves in the medication reconciliation process. Engaging patients in medication reconciliation through a web portal has been found to be a feasible approach to improve medication safety (14). Web portals may also be useful to support pharmacist-led medication reviews and reconciliation.

Beyond medication reconciliation at points of transition, there is an ongoing need to maintain a patient medication list in primary care records. Although there are logistic challenges in high-throughput services, especially when patients seek treatment from multiple health care providers, this is an important area of focus to support safer care.

3.3 Example: sharing information

Another example of a strategy to improve transitions of care is to share information using "yellow envelopes" (or discharge envelopes). This is a proactive, low-cost solution to communicate patient information. It has been tested in a number of contexts, including transitions between hospital and residential care homes for





older people (15). Information is placed in an envelope. The back of the envelope features a checklist of crucial and agreed upon handover information to be included when the patient is transferred. An advantage is that it is continuously available and can be regularly updated to notify providers of patients at high-risk of safety incidents during transitions.

“Warm handovers” involve actual person-to-person communication rather than reliance on documentation alone. There is emerging evidence that this can improve communication, particularly when sharing information with patients and their families (16).

3.4 Success factors

No single initiative has been found to consistently address the issues in all contexts. Most interventions achieve positive outcomes overall, although some reports have identified poor health outcomes and patient dissatisfaction. There is also an inconsistency across geographical areas and populations, with strategies reported as successful in some areas yet less successful elsewhere. Therefore, the context of implementation is of great importance and it is critical for health systems and health care providers to understand these contextual factors. A systems approach, which combines a number of evidence-based interventions, is likely to be the most effective approach.

One of the most important factors in improving transitions of care is the culture of the organization(s) and this should be considered when developing solutions. Interventions need to be integrated within a comprehensive approach and supported by appropriate financing mechanisms, reliable information transfer systems to facilitate sharing information, clinician support and training and culturally sensitive strategies to address patient health literacy and patient engagement (17,18).

Other important factors include the potential location of health services, patient registers, shared decision support systems across services, the development of clinical pathways for specific conditions and formalized relationships between health professionals or health services in different sectors and jurisdictions (19).

These types of interventions may involve the introduction of new roles, which can be disruptive for existing staff. Where interventions involve such change, implementation will likely be easier within a supportive culture that takes into account aspects such as staff satisfaction and development (including providing support for training); strategic and systematic management of the skill mix change, which is coordinated by senior management; and the development of a methodology for change that is shaped by employee participation (20).

Research suggests that many health care systems and patients rely on primary care doctors to take the lead in coordinating patient care between primary care and hospital settings (21). However, the shortage of information provided, the lack of direct contact between professionals, and the involvement of multiple individuals can make it difficult for primary care doctors to fulfil this role. A study in one low-income country examined the extent to which office-based doctors received patient health information from health care providers outside their own clinical practice,



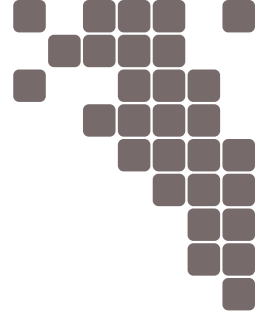
including hospitals. The study found that just over half of all doctors reported having routinely received a patient's hospital discharge information. Those who used an electronic health record system were more likely to receive patient information, although even then the routine transfer of patient information was not necessarily common (22).

Another factor is that primary care doctors may not feel appreciated or rewarded for the role of care coordination. In countries where primary care is not the central component of the health care system, agreement on who takes the lead in care coordination is an additional challenge. Care coordinators with a nursing background may have a role to play in supporting transitions.

Improvement initiatives need to cover the entire spectrum of transitions. This includes preparation for transition, following through with the transition process, for example with care coordinators or case managers, and post-transition support, which can be undertaken by transition teams that provide support for limited periods of time, or ongoing consultation, monitoring and shared care arrangements.

At each stage, it is important to have clear ownership or responsibility for patients in transition. For example, the referring party might consider that the patient has moved beyond the responsibility of their health care service, while the receiving party might not be aware that the patient has been referred until the patient actually arrives.





4 Practical next steps

There is no one-size-fits-all approach to addressing issues associated with transitions of care. The success or failure of a strategy appears to be dependent on its context, including the people involved and the way in which it is implemented. The organizational culture is also of crucial importance.

Strategies that WHO Member States could consider prioritizing for effective transitions of care include:

1. Sharing tools and developing governance arrangements

- building shared approaches to governance across organizations and sectors; networked governance may support safer transitions of care;
- using electronic health records with interoperability across sectors and organizations so that information can be transferred between points of care without having to rely solely upon oral communication between health care providers;
- standardizing processes related to appointments, medical records, test results, information flow and communication;
- using simple checklists to ensure key tasks are performed in a standardized manner, including follow-up;
- implementing tracking systems for diagnostic tests, referrals and appointments.

2. Using a systems approach

- combining evidence-based interventions to support safer and smoother transitions. No single intervention has been consistently found to address all the issues and thus solutions require a systems approach. This may include three aspects for all patients: (i) involving patients and carers as part of the team; (ii) timely transfer of accurate clinical and social information between settings; (iii) medication reconciliation. Some patients identified as being at higher risk may require additional measures tailored to their individual clinical and social needs;
- considering a range of evidence-based initiatives, such as discharge planning, medication reconciliation, timely patient follow-up, timely clinical handovers, patient and carer support and education strategies.

3. Identifying those most at risk of safety incidents

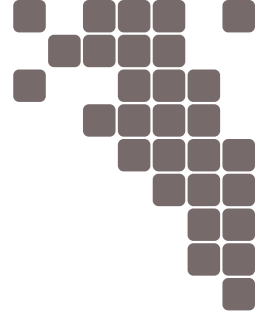
- using tools to identify transitions at high risk of safety incidents;
- undertaking research to inform improvements in transitions of care, particularly for the elderly, those with complex conditions, and patients with low socio-economic status.



4. Focusing on enhancing relationships and communication

- showcasing strategies to improve communication between patients and health care providers, and among organizations;
- providing checklists and written instructions about the transition for patients, family members and carers;
- using agreed standardized terminology between primary and secondary care.





5 Concluding remarks

Primary care services are at the heart of health care in many countries. They provide an entry point into the health system and directly impact on people's well-being and their use of other health care resources. Unsafe or ineffective primary care may increase morbidity and preventable mortality, and may lead to the unnecessary use of scarce hospital and specialist resources. Thus, improving safety in primary care is essential when striving to ensure universal health coverage and the sustainability of health care. Safer primary care is fundamental to the United Nations Sustainable Development Goals, particularly to ensure healthy lives and promote well-being for all at every age.

Understanding the magnitude and nature of harm in primary care is important because a significant proportion of health care is offered in this setting, yet there is little clarity about the most effective ways to address safety issues at this level.

This monograph summarizes the evidence and experience about effective transitions of care for patient safety in primary care. However, interventions to strengthen mechanisms for effective transitions of care would need to be implemented in conjunction with other important aspects covered in this series.

The *Technical Series on Safer Primary Care* addresses selected priority areas that WHO Member States could prioritize, according to local needs. This section summarizes the key messages from all of the monographs and provides a list of 10 key actions that are likely to have the most impact on improving safety in primary care. Links to online toolkits and manuals are also referenced in order to provide practical suggestions for countries and organizations committed to moving forward this agenda.

1. Set local priorities

Countries and regions differ and a strategy that works well in one area may not transfer well to another. Similarly, issues in need of improvement in some regions may not be a priority for others. In seeking to improve safety in primary care, countries could use local information about their safety issues to identify key priorities at the national or regional level. Priority setting could be accomplished by drawing on input from patients and professionals, sourcing local statistics on safety issues and comparing key themes from the literature with local circumstances (23).

Checklists are also available to help identify potential patient safety issues such as environmental risks in primary care services (24).

One practical way to move forward is creating mechanisms for bringing together key stakeholders to consider the local information available and develop strategic and operational plans for improving safety in primary care. Communicating proposed priorities widely and amending them based on feedback from health



care professionals and patients would help to obtain their buy-in, as well as raise awareness of the importance of improving patient safety in primary care.

Regular measurement of safety related performance indicators could be considered as one of the priorities. Policy-makers can use measurements to help identify local issues where performance is suboptimal and then evaluate different types of interventions for improvements. Priorities could be reviewed every few years to ensure that they remain in line with local needs and good practice.

2. Take a wider systems approach to improving safety

Although the series has described specific technical areas, each monograph refers to interlinkages with other areas. Focusing on improving just one factor may not have a large or sustainable impact on patient safety overall. It may be important to simultaneously improve communication with patients, train health care professionals and introduce new tools to support more streamlined care.

Taking a systems approach to safer primary care means looking at how different components relate to one another and considering various factors which could influence safety. These include factors such as workforce availability and capability.

A practical systems level initiative is to focus on increased communication and coordination across different types of care including primary, secondary and also social care. This may include strengthening technical systems for sharing records and communicating what is happening.

It is also important to build relationships between care professionals. At a policy level, this may involve considering how to develop supportive infrastructure, such as having a directory of services to help build networks of professionals and align resources. If hospital, primary care and social care professionals are able to meet and discuss safety issues, this could foster supportive relationships and increase understanding of each other's roles. Regional forums or meetings could be set up so that professionals from different organizations can get to know each other and share their successes and challenges in improving patient safety.

Manuals and reference lists are available with further ideas for improving coordination and reducing fragmentation across systems (25,26).

3. Communicate the importance of safety in primary care

Policy-makers, health care professionals, patients and families may not always be aware that there are important safety issues to consider in primary care. Raising awareness of this as a priority area will help stakeholders to understand why safety in primary care is essential to improve people's well-being and for safeguarding scarce health care resources.

Serious consequences due to the lack of safety in primary care, particularly relating to poor transitions of care between primary and other levels, and administrative, diagnostic and medication errors could be highlighted to raise awareness on the need to improve patient safety in primary care.





Practical ways to increase awareness include incorporating safety-related information into the training of health professionals, communicating effectively to professionals and patients through channels that would be most appropriate for them and spreading key messages through media campaigns. A communications plan could be developed in tandem with local priority setting discussed earlier.

4. Focus on building a positive safety culture

Effective leadership and supportive culture are essential for improving safety in primary care. This means creating an environment where professionals and patients feel able to speak up about safety issues that they are concerned about, without fear of blame or retribution. It means promoting an environment where people want to report risks and safety incidents in order to learn from them and reduce their recurrence, and where incidents are seen as caused largely by system failures rather than individuals. This also includes the importance of having feedback mechanisms in place to explain any improvements made after safety issues have been raised. Promoting transparency is key to building a strong safety culture.

A number of tools are available describing approaches to support the development and measurement of a positive safety culture (27,28).

Practical steps that could be taken to strengthen safety culture include: leadership walkrounds, whereby senior managerial and clinical leaders “walk the floor” (in this case, leaders visiting clinics and speaking with staff and patients about what is working well and not so well); starting team meetings with a patient story; using reflective practice to focus on safety issues, such as audits and having mechanisms for reporting safety issues, such as through regular team meetings. Such approaches may need to be adapted for use in smaller primary care clinics. Regardless of the specific method, the focus should be on raising awareness, encouraging safety discussions and taking concrete follow-up actions to build a safety culture.

5. Strengthen ways of measuring and monitoring patient safety

It is important to measure and monitor patient safety improvements over time. This may include having clear definitions of patient safety incidents and indicators to be measured annually, setting up national or local incident reporting systems where data is compiled regularly, or using tools to assess patient experiences and measure improvements in patient safety.

Using checklists in individual practices can both improve the quality of care and act as a structured form of record keeping. A number of examples of checklists to improve safety monitoring are available (29).

Data quality is fundamental to measuring improvements in patient safety. If accurate and comprehensive medical records are not kept, then errors and omissions are more likely to occur. As health systems mature, clinical governance processes tend to strengthen. This includes having processes for managing risks and identifying strategies for improvement.





A number of tools are available to measure and monitor different aspects of safety in primary care and countries could examine what is currently available and adapt materials based on local priorities (30,31).

6. Strengthen the use of electronic tools

The adoption of electronic tools will be critical to improving safety in many ways. Examples include the use of electronic health records for more accurate and complete patient records; timely and reliable sharing of health data; supporting the diagnosis, monitoring and management of diseases and conditions; effecting behaviour change and reduction of health risk, and empowering and engaging patients and families in their own care. eHealth can help structure communication between professionals in a way that reduces errors and improves coordination. It can reduce unnecessary consultations and hospitalizations and improve access to knowledge about health conditions and their management for both professionals and patients. However, to achieve their full potential, electronic tools need to be integrated with other parts of service delivery and adapted to the local context.

It takes time and resources to implement electronic tools, and requires the capacity to use and maintain them. It is therefore important to be strategic and to understand the foundations and design of systems in order to ensure the best return on investment. Linking the implementation of electronic tools in local settings to a national eHealth strategy is essential as it provides the foundation, justification and support needed to go forward in a coordinated way.

Irrespective of the status of the health system, it is important to strengthen the use of electronic systems to improve patient safety. For some countries, this may involve the introduction of electronic health records to replace paper records. For others, it may mean having integrated electronic systems between primary care and hospital and social care, or making the tools easier for professionals and patients to use. Countries could draw on lessons learned from other countries about implementing electronic health records, including the challenges faced and how these were overcome, and what best practices could be applicable to their own setting.

7. Involve patients and family members

Empowering and encouraging patients to speak up, for example when something does not seem right or when a symptom is inadequately explained, can be fundamental to improving patient safety. Family members play a key role as advocates and informal carers and therefore supporting and educating them can help to improve safety.

Proactive engagement of patients and families can help to accelerate the implementation of health care safety initiatives. When systems open themselves up to patients rather than being reactive, this is likely to improve system efficiency and the quality of care.

A number of tools have been evaluated to enhance patient and family involvement and awareness, including those with limited or low literacy skills (32-35).





8. Strengthen workforce capacity and capability to improve safety

There is a need to strengthen the primary care workforce in many settings by training a large pool of generalist workers, including doctors, nurses and those with supporting roles.

Strengthening the workforce also involves focusing on recruitment and retention, including taking steps to enhance the physical and physiological safety of health care workers. Professional burnout, fatigue and stress can all adversely affect patient safety.

The education and training of health care professionals to manage and minimize potential risks and harm that can occur in primary care are central to improving safety at all levels of care. This includes providing training on patient safety for students (including students who may not be training to work in primary care to ensure understanding across the different care pathways), multidisciplinary and inter-professional education, as well as continuing professional development. A number of free training course materials are available to help with this (36-38). As a further step, consideration could be given to making involvement in safety and quality improvement a requirement for ongoing training and professional licensure.

In addition to formal education, informal approaches could also be applied to build the capacity of health workforce to improve safety. This may include holding regional meetings and coaching sessions to review patient safety incidents and areas for improvement, and holding small team meetings to upskill staff.

9. Focus on those at higher risk of safety incidents

Some people are at greater risk of safety incidents in primary care. These include children, older people, those living in residential care or nursing homes and people with multiple health conditions. People with simultaneous mental health and physical health issues are also at increased risk of safety incidents.

Focusing on groups at higher risk may improve the quality and safety of care by providing more personalized care and ensuring smoother transitions between and within services. For instance, upskilling professionals in how to identify and treat depression may have an impact given the high rate of adverse events among those with combined mental and physical health issues.

Across the world, most systems were not designed to care for people with multiple health conditions. Systems may thus need to focus more on what can be done to improve care for people with multiple conditions, including whether social interventions would be more worthwhile than increasing medicalization.

A number of guidelines and toolkits suggest practical steps to better support people at higher risk of safety incidents (39-43).



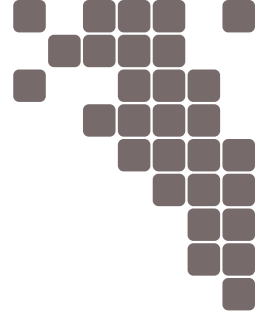


10. Celebrate successes and share learning with others

Local teams, regions and countries should celebrate their successes and share learning with others. Hearing what has worked well can spark ideas in others and help to continue the momentum towards safer primary care.

Ongoing research plays a key role in identifying what works best to improve safety and how to implement best practices and success stories across diverse care settings. Although the technical series has drawn together a wide range of evidence and expertise, it has also highlighted a number of gaps about what works best concluding remarks to improve patient safety in the primary care context. By continuing to promote learning through research, and publishing and disseminating findings, countries could contribute to knowledge in this area.





Contributors

Leadership group

Aziz Sheikh

University of Edinburgh
Edinburgh, United Kingdom

Liam Donaldson

WHO Envoy for Patient Safety
World Health Organization
Geneva, Switzerland

Neelam Dhingra-Kumar

World Health Organization
Geneva, Switzerland

David Westfall Bates

Harvard University
Boston, United States of America

Edward Kelley

World Health Organization
Geneva, Switzerland

Itziar Larizgoitia

World Health Organization
Geneva, Switzerland

Project coordination and editorial support

Sukhmeet Singh Panesar

Baylor College of Medicine
Houston, United States of America

Debra de Silva

The Evidence Centre
London, United Kingdom

Chris Singh

The Evidence Centre
Wellington, New Zealand

Authors

Paresh Dawda

Australian National University
Canberra, Australia

Lesley Russell

University of Sydney
Sydney, Australia

Other contributors

Elzerie de Jager

World Health Organization
Geneva, Switzerland

Tejal Gandhi

National Patient Safety Foundation
Boston, United States of America

Nalika Gunawardena

University of Colombo
Colombo, Sri Lanka

Katherine Hayes

World Health Organization
Geneva, Switzerland



**Mondher Letaief**

World Health Organization
Eastern Mediterranean Office
Cairo, Egypt

Ellen Nolte

European Observatory on Health
Systems and Policies
London, United Kingdom

Robert Reid

University of British Columbia
Toronto, Canada

Edward Mann

World Health Organization
Geneva, Switzerland

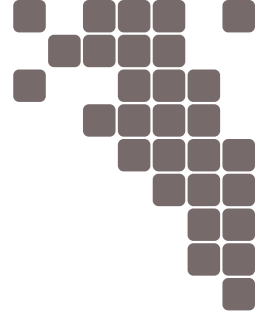
Chow Mun Hong

SingHealth Polyclinics
Singapore, Singapore

Ruth Wilson

Queen's University
Kingston, Canada





References

- 1 Coleman EA, Boult CE. Improving the quality of transitional care for persons with complex care needs. *J Am Geriatr Soc.* 2003; 51(4):556-7.
- 2 Improving transitions of care. The vision of the national transitions of care coalition. Washington DC: National Transitions of Care Coalition; 2008.
- 3 Russell LM, Doggett J, Dawda P, Wells R. Patient safety – handover of care between primary and acute care. Policy review and analysis. Canberra: National Lead Clinicians Group, Australian Government Department of Health and Ageing; 2013.
- 4 Coleman EA, Min S, Chomiak A, Kramer AM. Post hospital care transitions: patterns, complications and risk identification. *Health Serv Res.* 2004;39(5):1449-66.
- 5 Poulos CJ, Magee C, Bashford G, Eagar K. Determining level of care appropriateness in the patient journey from acute care to rehabilitation. *BMC Health Serv Res.* 2011;11:291.
- 6 Kane RL. Finding the right level of posthospital care: “We didn’t realize there was any other option for him.” *JAMA.* 2011;305(3):284-93.
- 7 Shadmi E. Quality of hospital to community care transitions: the experience of minority patients. *Int J Qual Health Care.* 2013;25(3):255-60.
- 8 Bywood PT, Jackson-Bowers E, Muecke S. Initiatives to integrate primary and acute health care, including ambulatory care services. Policy Issue Review. Adelaide: Primary Health Care & Information Service; 2011.
- 9 Soong C, Daub S, Lee J, Majewski C, Musing E, Nord P, et al. Development of a checklist of safe discharge practices for hospital patients. *J Hosp Med.* 2013;8(8):444-9.
- 10 Shepperd S, Lannin NA, Clemson LM, McCluskey A, Cameron ID, Barras SL. Discharge planning from hospital to home. *Cochrane Database Syst Rev.* 2013;1:CD000313.
- 11 Bryan K. Policies for reducing delayed discharge from hospital. *Br Med Bull.* 2010;95(1):33-46.
- 12 Medication reconciliation. European Union Network for Patient Safety and Quality of Care; 2012 (<http://www.pasq.eu/Home.aspx>, accessed 19 September 2016).

- 13 Greenwald JL, Lakshimi H, Greene J, LaCivita C, Stucky E, Benjamin B, et al. Making inpatient medication reconciliation patient centered, relevant and implementable: a consensus statement on key principles and first steps. *J Hosp Med*. 2010;5(8):471-85.
- 14 Heyworth L, Clark J, Marcello T, Paquin AM, Stewart M, Archambeault C, et al. Aligning medication reconciliation and secure messaging: qualitative study of primary care providers' perspectives. *J Med Internet Res*. 2013;15(12):e264.
- 15 Belfrage MK, Chiminello C, Cooper D, Douglas S. Pushing the envelope: clinical handover from the aged care home to the emergency department. *Med J Aust*. 2009;190(11):117.
- 16 Horevitz E, Organista KC, Areal PA. Depression treatment uptake in integrated primary care: how a "warm handoff" and other factors affect decision-making by Latinos. *Psychiatr Serv*. 2015;66(8):824-30.
- 17 Kansagara D, Chan B, Harmon D, Englander H. Transitions of care: putting the pieces together. *Virtual Mentor*. 2013;15(2):145-9.
- 18 Li J, Young R, Williams MK. Optimizing transitions of care to reduce rehospitalization. *Cleveland Clinic J Med*. 2014;81(5):312-20.
- 19 Rutherford P, Nielsen GA, Taylor J, Bradke P, Coleman E. How-to guide: improving transitions from the hospital to community settings to reduce avoidable rehospitalizations. Cambridge (MA): Institute for Healthcare Improvement; 13.
- 20 McKee M, Dubois CA, Sibbald B. Changing professional boundaries. In: Dubois CA, McKee M, Nolte E, editors. *Human resources for health in Europe*. Maidenhead: Open University Press/McGraw Hill Education; 2006: 63-78.
- 21 Proceedings from the European Handover Research Collaborative. *BMJ Qual Saf*. 2012;21(Suppl. 1).
- 22 Hsiao CJ, King J, Hing E, Simon AE. The role of health information technology in care coordination in the United States. *Med Care*. 2015;53:184-90.
- 23 Improving safety in primary care. London: The Health Foundation; 2011; (<http://www.health.org.uk/publication/improving-safety-primary-care>, accessed 19 September 2016).
- 24 Primary risk in management services. Cardiff: Public Health Wales; 2015 (<http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=73076>, accessed 19 September 2016).
- 25 The improving chronic illness care program. Primary care team guide. Seattle, WA: The MacColl Center; 2016 (http://www.improvingchroniccare.org/downloads/reducing_care_fragmentation.pdf accessed 19 September 2016).
- 26 Care coordination resource list. Beerse: Janssen Pharmaceuticals Inc.; 2014 (<http://www.janssenpharmaceuticalsinc.com/sites/default/files/pdf/Care-coordination-resource-list.pdf> accessed 19 September 2016).

- 27 Seven steps to patient safety. London: National Patient Safety Agency; 2004 (<http://www.nrls.npsa.nhs.uk/resources/collections/seven-steps-to-patient-safety/?entryid45=59787>, accessed 19 September 2016).
- 28 Safety and improvement in primary care. Edinburgh: NHS Education for Scotland; 2011 (<http://www.nes.scot.nhs.uk/media/3437356/Safety-and-Improvement-Educational%20Resources-A-Toolkit-for%20Safe-Effective-Person-Centred-Care.pdf>, accessed 19 September 2016).
- 29 Accreditation handbook for ambulatory health care Skokie, IL: Accreditation Association for Ambulatory Health Care, (http://www.aaahc.org/Global/Handbooks/2015_Accreditation%20Handbook_FNL_5.22.15.pdf, accessed 19 September 2016).
- 30 Tools. Cambridge, MA: Institute for Healthcare Improvement; 2016 (<http://www.ihl.org/resources/Pages/Tools/default.aspx>, accessed 19 September 2016).
- 31 Patient safety toolkit. London: Royal College of General Practitioners; (<http://www.rcgp.org.uk/clinical-and-research/toolkits/patient-safety.aspx>, accessed 19 September 2016).
- 32 Partnering with patient and families to enhance safety and quality: a mini toolkit. Bethesda, MD: Institute for Patient- and Family-Centered Care; 2013 (<http://www.ipfcc.org/tools/Patient-Safety-Toolkit-04.pdf>, accessed 19 September 2016).
- 33 Health literacy toolkit for low-and middle-income countries. New Delhi: World Health Organization Regional Office for South-East Asia; 2015 (http://www.searo.who.int/entity/healthpromotion/documents/hl_toolkit/en/ accessed 19 September 2016).
- 34 Health literacy universal precautions toolkit. Rockville, MD: Agency for Healthcare Research and Quality; 2016 (<http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/index.html>, accessed 19 September 2016).
- 35 The Boston Medical Center patient navigation toolkit. Boston, MA; The AVON Foundation and the National Cancer Institute; (https://nciphub.org/resources/1600/download/BMC_Patient_Navigation_Toolkit_-_Vol_1.pdf, accessed 19 September 2016).
- 36 Patient safety research: introductory course (on-line). Geneva: World Health Organization; 2016 (http://www.who.int/patientsafety/research/online_course/en/, accessed 19 September 2016).
- 37 Master in Health Administration. 65+ free online healthcare courses. Davis, CA; University of California; 2016 (<http://mhadegree.org/free-online-healthcare-courses/>, accessed 19 September 2016).
- 38 Patient safety network. Training catalog. Rockville, MD: Agency for Healthcare Research and Quality; 2016 (<https://psnet.ahrq.gov/pset>, accessed 19 September 2016).



- 39 Age-friendly primary health care centres toolkit. Geneva: World Health Organization; 2008 (http://www.who.int/ageing/publications/AF_PHC_Centretoolkit.pdf, accessed 19 September 2016).
- 40 Patient safety collaborative manual. Hamilton/Mount Gambier/Warrnambool; Greater Green Triangle/Australian Primary Health Care Research Institute; 2016 (<http://www.greaterhealth.org/resources/patient-safety-collaborative-manual>, accessed 19 September 2016).
- 41 Toolkit for general practice in supporting older people with frailty and achieving the requirements of the unplanned admissions enhanced (2014). NHS England South Region; 2014 (http://www.nhs.uk/media/2630779/toolkit_for_general_practice_in_supporting_older_people.pdf, accessed 19 September 2016).
- 42 Stay independent falls prevention toolkit for clinicians. Health Quality and Safety Commission New Zealand; 2015 (<http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/publications-and-resources/publication/2232/>, accessed 19 September 2016).
- 43 Prevention and control of noncommunicable diseases: guidelines for primary health care in low-resource settings. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/76173/1/9789241548397_eng.pdf, accessed 19 September 2016).



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For more information, please contact:

Department of Service Delivery and Safety

World Health Organization

Avenue Appia 20

CH-1211 Geneva 27 Switzerland

Email: patientsafety@who.int

www.who.int/patientsafety



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