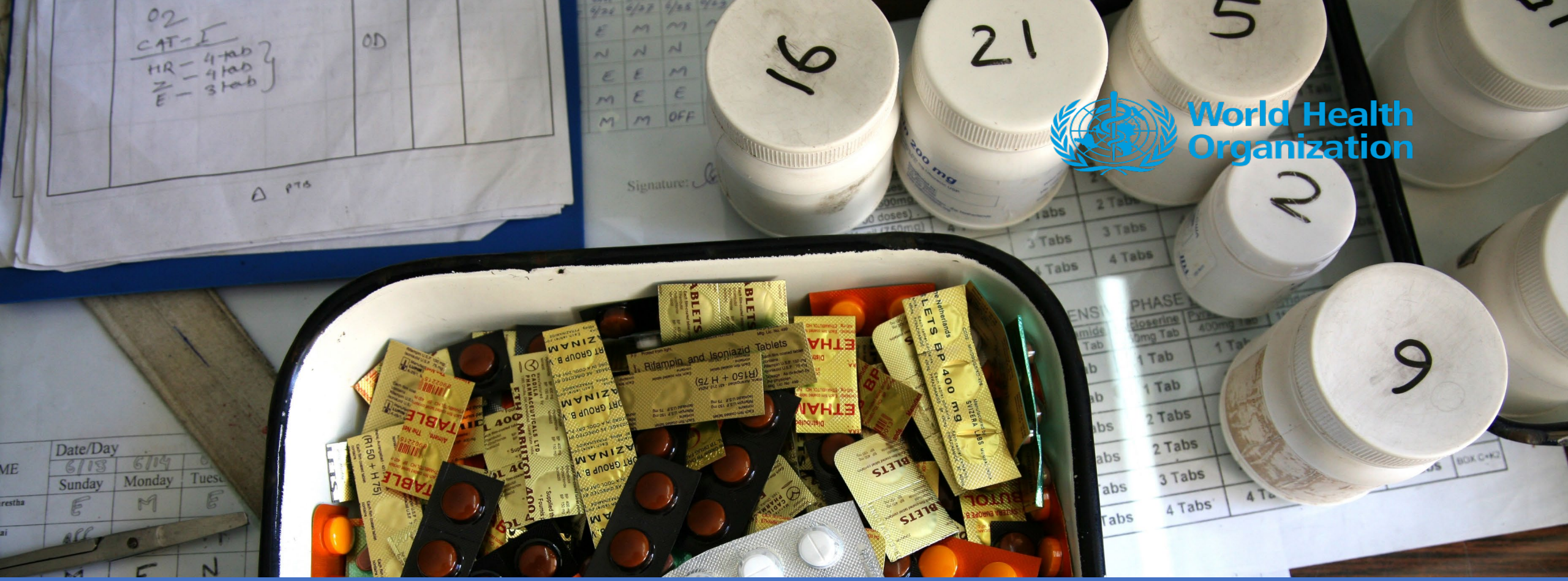
Medication Safety: Implementing the *Challenge*

Global Patient Safety Network Webinar Series

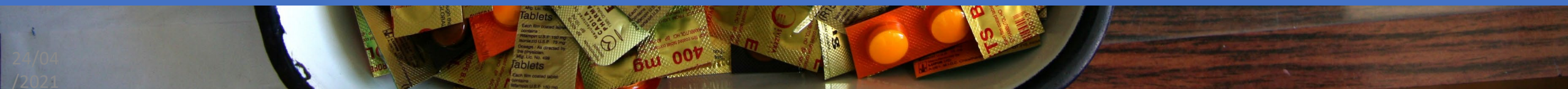
MEDICATION WITHOUT HARM
Global Patient Safety Challenge

Dr Neelam Dhingra
Unit Head
Patient Safety Flagship
WHO headquarters, Geneva



The *Challenge* and key developments

MEDICATION WITHOUT HARM
Global Patient Safety Challenge



Planning and Designing the third Global Patient Safety Challenge: *Medication Without Harm* (2016)

World Health Organization

Expert Consultations and Working group meetings

Goal of the *Challenge*

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

Reduce the level of severe, avoidable harm related to medications by 50% over 5 years, globally

World Health Organization

Objectives of the *Challenge*

- **RAISE** awareness of the problems of unsafe medication practices and medication errors, and *the Challenge* as a vehicle to address this issue
- **DEVELOP** guidance/materials/technologies/tools to support safer medication systems
- **BUILD** capacities of health workers to reduce the risk of medication-related harm through education and training, developing competencies
- **EMPOWER** patients/families to become actively engaged in decisions, ask questions, spot errors, manage their medications
- **ENGAGE & SEEK COMMITMENT** of key stakeholders/partners/industry to raise awareness and support implementation of *the Challenge*

Shaping the *Challenge*:
the Strategic Framework

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

Patients	Medicines
Health professionals	Systems

World Health Organization

Key Actions Areas

- High-risk situations
- Polypharmacy
- Transitions of Care

Strategic framework- Sub-domains

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Patients and the public

- Public awareness and medication literacy
- Patient engagement
- Reporting by patients
- Involvement of patient organizations

Health care professionals

- Education and training
- Communication and teamwork
- Capability at the point of care
- Incident reporting and learning

Medicines

- Product quality and safety
- Naming, labelling and packaging
- Logistics, storage and disposal
- Right product at the point of care

Systems and practices of medication

- Leadership and governance
- Prescribing, preparation and dispensing
- Administration and patient monitoring
- Monitoring and evaluation

WHO Global Patient Safety Challenge

Medication Without Harm

Global Launch, 29 March 2017

Regional launch events

Eastern Mediterranean region

Western Pacific region

TOGETHER for Safer Care

High Level Forum:

Towards an

Africa Patient Safety Initiative

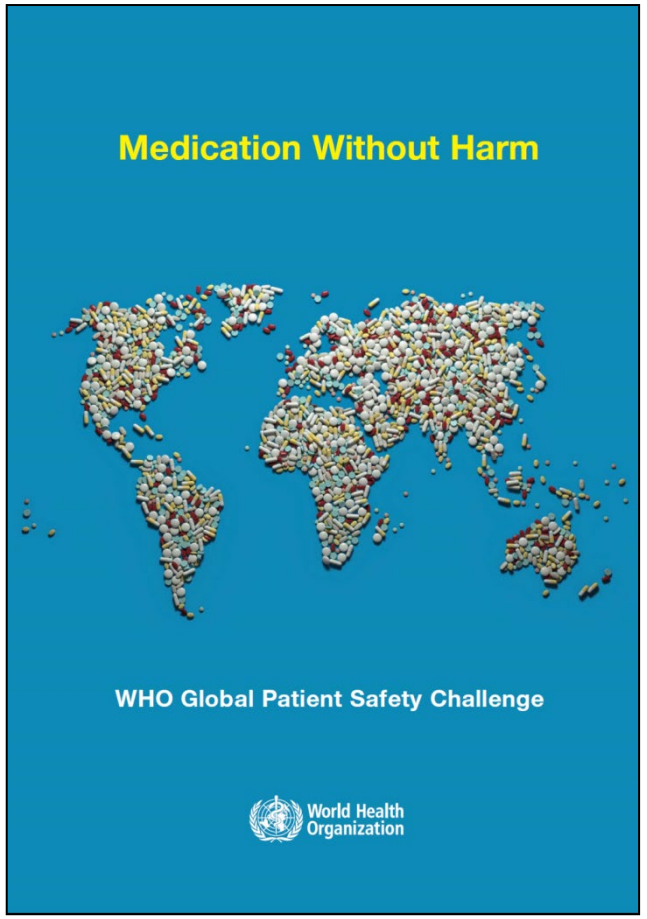
24-25 October 2019, Cape Town, South Africa

Patient Safety

World Health Organization

- Africa Patient Safety Initiative – Shared vision for safer care
- Accelerating action on Global Patient Safety Challenge: *Medication Without Harm* – ***African regional launch***
- Seeking high level commitment for patient safety in Africa
- "TOGETHER for Safer Care: Consensus Statement for urgent action on Patient Safety in Africa"

Advocacy Materials and Visual Identity



MEDICATION WITHOUT HARM
Global Patient Safety Challenge

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

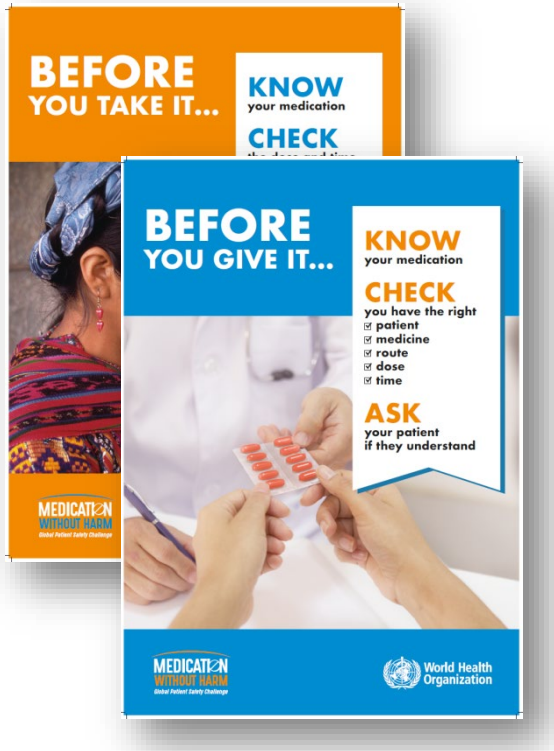
https://www.who.int/initiatives/medication-without-harm

Medication Safety Resources

https://www.who.int/initiatives/medication-without-harm

- Medication safety global campaign

KNOW.CHECK.ASK



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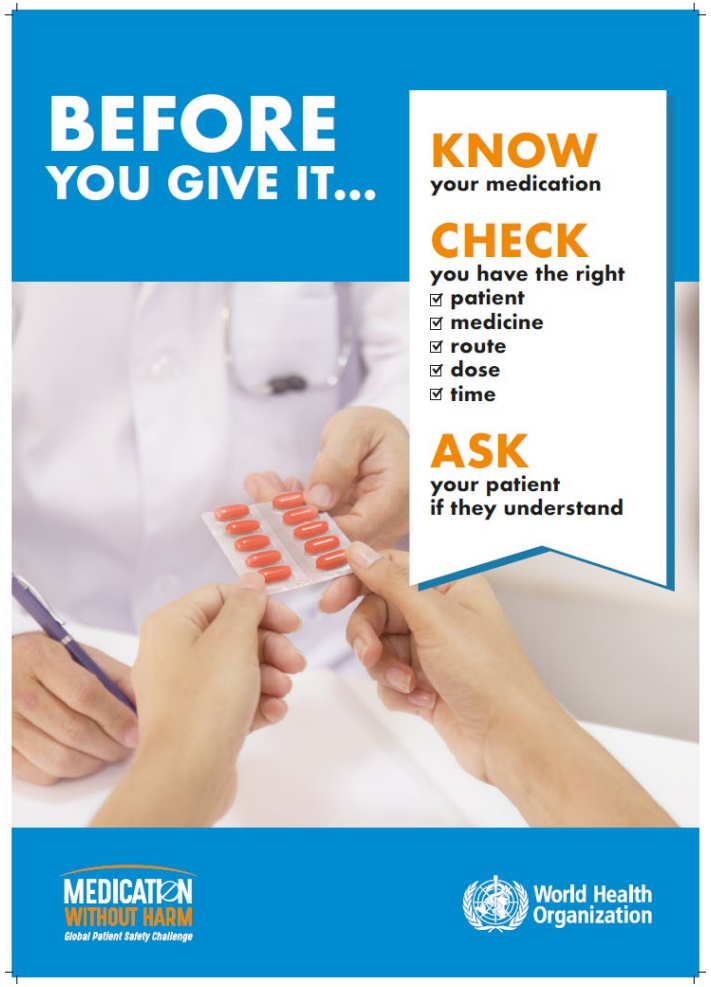
Global Campaign



Campaign materials

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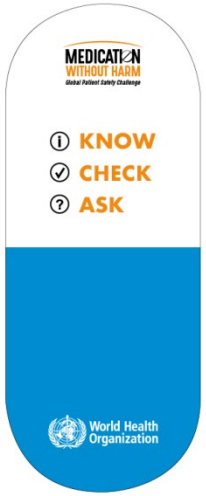

Medication Safety Resources

https://www.who.int/initiatives/medication-without-harm

- Mobile app
- Infographic poster
- Pamphlet
- Booklet
- Flyer

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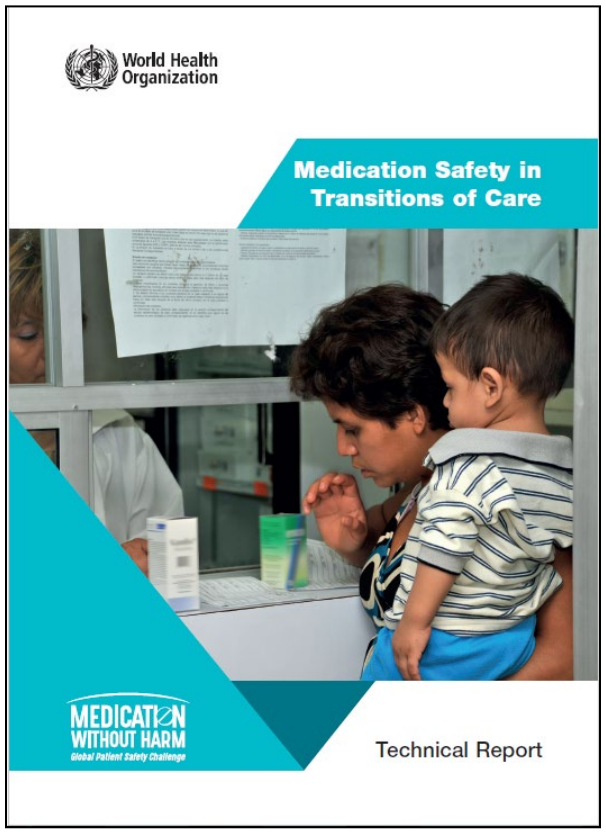
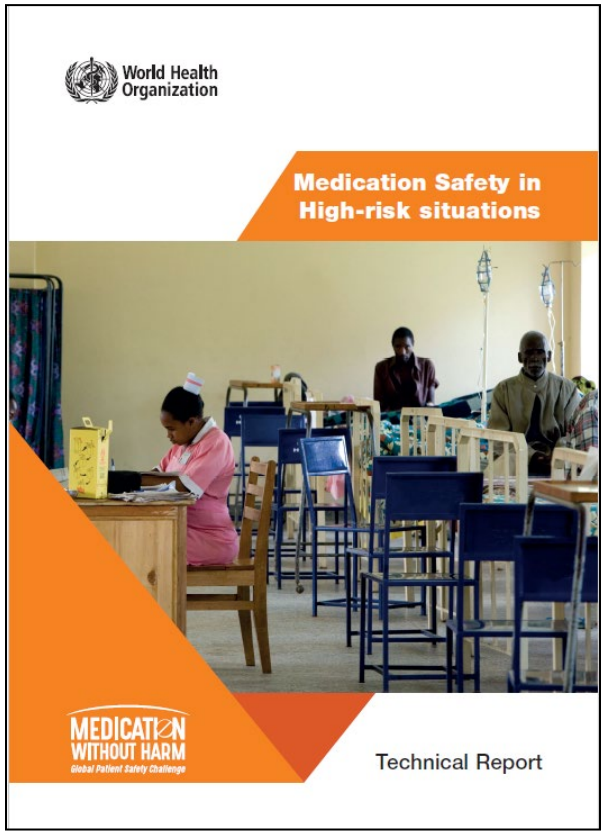
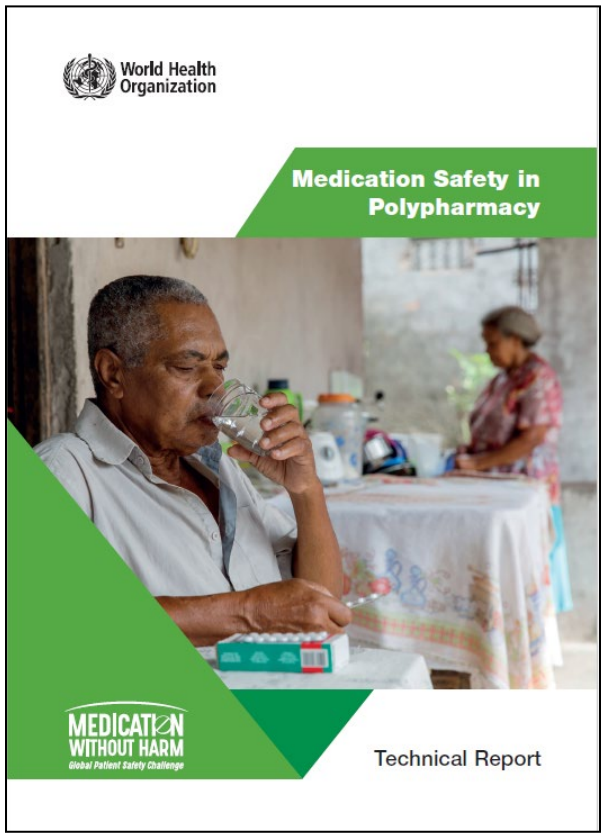
Early Priority Action – Technical reports







Medication Without Harm: WHO's Third Global Patient Safety Challenge

Lea Paterson/Science Photo Library

For the **WHO Global Patient Safety Challenge on Medication Without Harm** see http://www.who.int/patientsafety/medication-safety/en/

In 1960, Alphonse Chapanis, turned his attention from engineering to health care. In a study of medication-related errors in a 1100-bed hospital,[1] he and his colleague identified seven sources of such errors potentially leading to harm to a patient: medicine omitted, or given to the wrong patient, at the wrong dose, as an unintended extra dose, by the wrong route, at the wrong time, or as the wrong drug entirely. Almost 60 years later, these same types of errors still happen worldwide. Later that year in a follow-up policy paper,[2] Chapanis identified four areas of recommendations that could prevent harm and remain relevant today: written communication, medication procedures, the working environment, training, and education. Indeed, it is difficult to avoid the conclusion that had the recommendations from this revelatory patient safety research been assiduously followed over the past five decades, hundreds of thousands fewer patients would have been killed or seriously harmed by the medicines intended to make them well.

Beginning in 2004, WHO, working in partnership with the then World Alliance for Patient Safety, initiated two Global Patient Safety Challenges, Clean Care is Safer Care[3] and Safe Surgery Saves Lives.[4] These challenges mobilised worldwide commitment and action to reduce health-care-associated infections and risk associated with surgery, respectively. At the second Global Summit of Health Ministers on Patient Safety in Bonn, Germany, on March 29, 2017, the Director-General of WHO announced that the Third Global Patient Safety Challenge, Medication Without Harm, would address medication safety.[5]

The previous challenges secured strong and early commitment from health ministers, professional bodies, regulators, health leaders, civil society, and health-care practitioners. The action required to deliver the goals of each was broadly similar: an evidence-based analysis of the key problems and solutions; an invitation to WHO member states and other relevant parties to pledge, or sign-up, to address the aims of the challenge; high-profile actions to generate passion and enthusiasm; facilitation

professionals' behaviour; systems and practices of medication; medicines; patients and the public. Third, WHO will use its global convening and advocacy role to pursue successful outcomes in a range of areas, including: strengthening the quality of data to monitor medication-related harm; providing guidance and developing strategies, plans, and tools to ensure that the medication process has the safety of patients at its core in all health-care settings; producing a strategy for setting out research priorities; monitoring and evaluating the impact of the challenge; continuing to engage with regulatory agencies and international actors to improve medication safety through improved packaging and labelling; and designing tools and technologies that empower patients to safely manage their own medications.

Health ministers who commit to address this challenge will be invited to designate a national coordinator to spearhead the Global Patient Safety Challenge on Medication Without Harm in their country. Excellent professional leadership will be crucial for success. Throughout the implementation process, WHO will also seek to emphasise the special problems of medication-related harm in low-income and middle-income countries.

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Lancet

WHO Bulletin

Editorials

The third global patient safety challenge: tackling medication-related harm

Aziz Sheikh,[a] Neelam Dhingra-Kumar,[b] Edward Kelley,[b] Marie Paule Kieny[c] & Liam J Donaldson[d]

The World Health Organization (WHO) has announced its third global patient safety challenge,[1] which aims to reduce the global burden of iatrogenic medication-related harm by 50% within five years. The intention is to match the global reach and impact of the two earlier global patient safety challenges: *Clean care is safer care* and *Safe surgery saves lives*.[2,3] The third challenge, *Medication without harm*, invites health ministers to initiate national plans addressing four domains of medication safety: engaging patients and the public; medication as products; education, training and monitoring of health-care professionals; and systems and practices of medication management. This challenge also commits WHO to using its convening and coordinating powers to drive forward a range of global actions on medication safety.[4]

Here, we focus on three priority areas of medication safety that most affect patients, just as hand hygiene and the surgical checklist were chosen as the flagships of the first two challenges. These three areas are high-risk situations, polypharmacy and transitions of care. Each area is associated with a substantial burden of harm and therefore, if appropriately managed, could reduce the risk of harm to many patients.

Certain classes of medications are particularly liable to produce adverse reactions. They tend to have a narrow therapeutic index, meaning that small dosing errors can cause catastrophic outcomes. For example, the use of warfarin for anticoagulation is a high-risk clinical situation involving a medication because its use carries associated risks of bleeding if the international normalized ratio is too high and risks of further thrombosis if it is too low. The Clinical Excellence Commission has summarized high-risk medications in the acronym A PINCH (anti-infective agents; potassium and other electrolytes; insulin; narcotics and other sedatives; chemotherapeutic and immunosuppressive agents and heparin and anticoagulants).[5] However, this classification is not exhaustive; for example, other medications carry risks for those with underlying diseases, such as chronic kidney disease. Focusing on certain key classes of medications has enabled investigators to develop interventions that reduce inadvertent harm caused by these medications. Such interventions can involve low-technology solutions, such as patient medication diaries, or harness the potential of digital technology, as with clinical decision support systems linked with electronic health records.[6]

As people tend to live longer, receive treatment for more than one condition at a time and have access to an increasing number of therapeutic options, they tend to take multiple medications. This intake increases the likelihood of drug interactions. Elderly patients may also find it difficult to adhere to complex regimens, increasing the likelihood of patient-induced errors. Progress has been made in identifying medication history and drug-drug combinations that are particularly problematic, enabling risk-stratification and risk-reduction approaches through, for example, de-prescribing initiatives in Canada[7] and the United States of America.[8] However, these initiatives are only addressing a part of the problem of polypharmacy.

Reducing medication-related harm in the field of transitions of care[9] is the third priority area. Failure to effectively communicate information on medicines and/or underlying risk factors may cause medication errors when patients move between care settings (e.g. from primary to hospital care) and/or between care providers within the same setting (e.g. from out-patient respiratory to out-patient cardiovascular clinics). Initiatives designed to improve communication across such boundaries include standard operating procedures to support medication reconciliation such as WHO's High 5s Project,[10] pharmacist review of patients following admission and discharge from hospitals, summary of care records detailing principal diagnoses, allergies and medication(s), and shared cloud-based applications and electronic health records.

The three early priorities of the third global patient safety challenge are not mutually exclusive; many patients may be exposed to risks from a combination of adverse reactions, polypharmacy and miscommunication. Health-care professionals should focus particularly on those patients who are at higher risk of death or serious illness because of medication-related harm.

Making progress across these areas will require politicians and health-care leaders to prioritize medication safety – as was achieved in the first two challenges. The context in which medication-related harm occurs across a range of care settings needs to be clearly understood. Implementing measures to reduce this harm will need to include educating and empowering patients and carers; developing tools to assist frontline health-care professionals; and engineering new systems of care to create resilience against the factors that predispose to the risk of medication errors. ■

References

Available at: http://www.who.int/bulletin/volumes/95/8/17-198002

[a] Usher Institute of Population Health Sciences and Informatics, The University of Edinburgh, Teviot Place, Edinburgh, EH8 9DX, Scotland.
[b] Department of Service Delivery and Safety, World Health Organization, Geneva, Switzerland.
[c] Health Systems and Innovation, World Health Organization, Geneva, Switzerland.
[d] Department of Epidemiology and Public Health, London School of Hygiene & Tropical Medicine, London, England.
Correspondence to Aziz Sheikh (email: aziz.sheikh@ed.ac.uk).

World Health Organization

Electronic supplementary material:
The online version of this article contains supplementary material.

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PAPERS

Agreeing on global research priorities for medication safety: an international prioritisation exercise

Aziz Sheikh[1], Igor Rudan[1], Kathrin Cresswell[1], Neelam Dhingra-Kumar[2], Mei Lee Tan[2], Minna L Häkkinen[2], Liam Donaldson[2,3]; on behalf of the World Health Organization's Management Team on Research Priorities for Medication Safety

[1] Usher Institute of Population Health Sciences and Informatics, University of Edinburgh, Edinburgh, UK
[2] World Health Organization, Geneva, Switzerland
[3] London School of Hygiene and Tropical Medicine, London, UK

Correspondence to:
Prof. Aziz Sheikh
Chair of Primary Care Research and Development
Usher Institute of Population Health Sciences and Informatics
College of Medicine and Veterinary Medicine
University of Edinburgh
Old Medical School
Teviot Place
Edinburgh EH8 9AG, UK
aziz.sheikh@ed.ac.uk

Objectives Medication errors continue to contribute substantially to global morbidity and mortality. In the context of the recent launch of the World Health Organization's (WHO) Third Global Patient Safety Challenge: *Medication Without Harm*, we sought to establish agreement on research priorities for medication safety.

Methods We undertook a consensus prioritisation exercise using an approach developed by the Child Health and Nutrition Research Initiative. Based on a combination of productivity and citations, we identified leading researchers in patient and medication safety and invited them to participate. We also extended the invitation to a further pool of experts from the WHO Global Patient Safety Network. All experts independently generated research ideas, which they then independently scored based on the criteria of: answerability, effectiveness, innovativeness, implementation, burden reduction and equity. An overall Research Priority Score and Average Expert Agreement were calculated for each research question.

Findings 131 experts submitted 333 research ideas, and 42 experts then scored the proposed research questions. The top prioritised research areas were: (1) deploying and scaling technology to enhance medication safety; (2) developing guidelines and standard operating procedures for high-risk patients, medications and contexts; (3) score-based approaches to predicting high-risk patients and situations; (4) interventions to increase patient medication literacy; (5) focused training courses for health professionals; and (6) universally applicable pictograms to avoid medication-related harm. Whilst there was a focus on promoting patient education and involvement across resource settings, priorities identified in high-resource settings centred on the optimisation of existing systems through technology. In low- and middle-resource settings, priorities focused on identifying systemic issues contributing to high-risk situations.

Conclusions WHO now plans to work with global, regional and national research funding agencies to catalyse the investment needed to enable teams to pursue these research priorities in medication safety across high-, middle- and low-resource country settings.

Medication errors are common and are responsible for considerable – potentially avoidable – morbidity and mortality [1]. They are also costly for patients, health systems and society; globally medication errors impose an estimated financial burden of US $42 billion per year, accounting for almost 1% of total expenditure on health worldwide [2].

World Health Organization

Key Action Areas: National

Early priority actions

Ask countries and key stakeholders to make strong commitments, prioritize and take early action, and effectively manage three key areas to protect patients from harm, namely:

- high-risk situations
- polypharmacy
- transitions of care

Developmental programmes

Ask countries to convene experts, health professionals and leaders, stakeholders and patients to design targeted programmes of change

Take action to improve safety in each of the four domains of the Challenge framework:

- patients and the public
- medicines
- health care professionals
- systems and practices of medication

The success of the *Challenge* depends on…

- High prioritization of medication safety within health care systems
- Achieving widespread buy-in by stakeholders
- A shift to the mainstream of care provision activities
- Taking concrete actions to prevent harm
- Creating a social movement with involvement of all stakeholders

Join us in achieving...

Medication Without Harm

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World Health Organization

WHO

20, Avenue Appia
1211 Geneva

Switzerland

Thank you

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