

# Patient Safety : Key reflections

Sir Liam Donaldson High Level Forum, Africa Patient Safety Initiative Cape Town, South Africa 24<sup>th</sup> to 25<sup>th</sup> October 2019

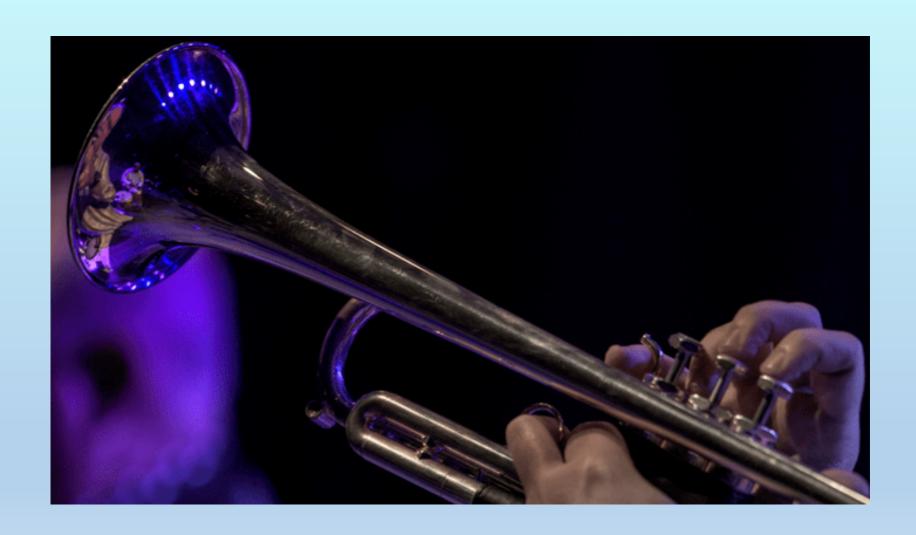
# Three stories of harm







# First story of harm



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#### Classical music

#### Maurice Murphy obituary

Top British orchestral trumpeter with the LSO, he played on the Star Wars films

Barry Millington Mon 29 Nov 2010 17.55 GMT



▲ Maurice Murphy defined the sound of the brass section in the London Symphony Orchestra. Photograph: Clive Barda/LSO

Maurice Murphy, who has died aged 75, was the leading British orchestral trumpet player of his generation. During the 30 years in which he was principal trumpet with the London Symphony Orchestra (LSO), he defined the sound of the brass section with the clarity, precision and diamond-sharp brilliance of his playing. In the concert hall he was an inspiration and could lift the orchestra with his exhilarating, visceral sound.

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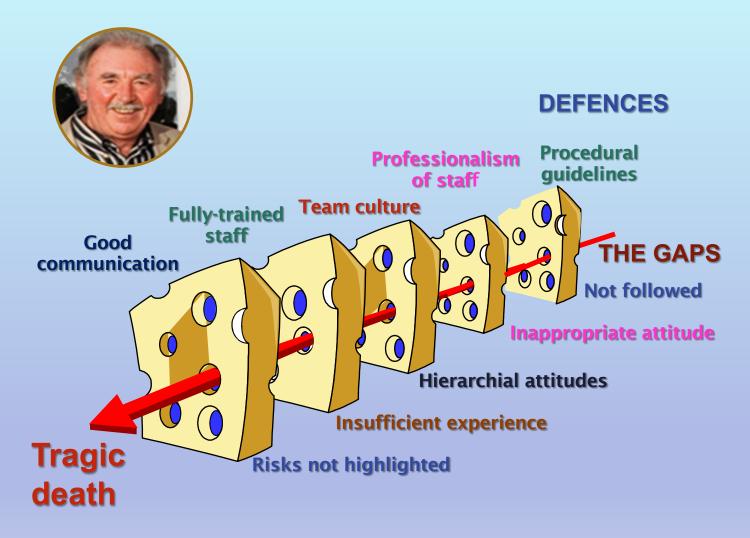


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# **Promoting Systems Thinking**



# Second story of harm

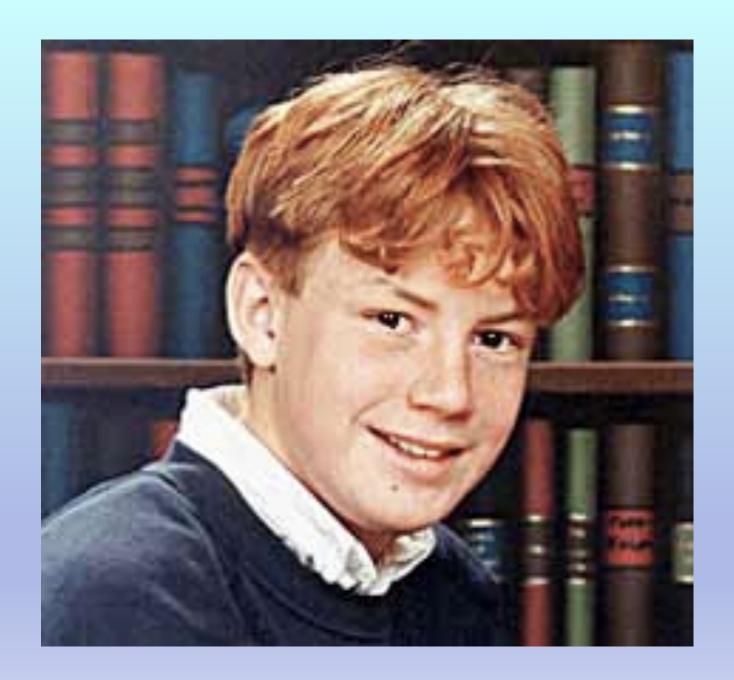




External Inquiry into the adverse incident that occurred at Queen's Medical Centre, Nottingham, 4th January 2001

by

Professor Brian Toft BA (Hons) Dip Com Sci (Cantab) PhD MinstD FIRM FIRSM FIOSH Hon FICDDS



## The seeds of destruction



# Pre-filled syringe containing Vincristine illustrating the warning written in blue text





# Third story of harm





#### INADVERTENT ADMINISTRATION OF AN ORAL LIQUID MEDICINE INTO A VEIN

12017/009

Independent report by the Healthcare Safety Investigation Branch

April 2019 Edition























### What can be learned from the three stories?







# Safety failings can have devasting consequences

- Patients can die
- Patients can be injured physically and psychologically
- Families can be destroyed
- The confidence of clinical teams can be undermined
- > The reputation of a service can be lost
- Costs can be high





STANDARD
DEFRATIRG
PROCEDURE









Patient Nasogastric tube misplacement: Safety continuing risk of death and severe harm

Alert reference number: NHS/PSA/RE/2016/006

Alert stage: Two - Resources

Use of misplaced nasogastric and orogastric tubes was first recognised as a patient safety issue by the National Patient Safety Agency (NPSA) in 20052 and three further alerts were issued by the NPSA and NHS England between 2011 and 2013.3.5 Introducing fluids or medication into the respiratory tract or pleura via a misplaced nasogastric or orogastric tube is a Never Event. Never Events are considered 'wholly preventable where guidance or safety recommendations that provide strong systemic protective barrier are available at a national level, and should have been implemented by all healthcare providers.'6

Between September 2011 and March 2016, 95 incidents were reported to the National Reporting and Learning System (NRLS) and/or the Strategic Executive Information System (StEIS) where fluids or medication were introduced into the respiratory tract or pleura via a misplaced nasogastric or orogastric tube. While this should be considered in the context of over 3 million nasogastric or orogastric tubes being used in the NHS in that period,7 these incidents show that risks to patient safety persist. Checking tube placement before use via pH testing of aspirate and, when necessary, x-ray imaging, is essential in preventing harm.

Examination of these incident reports by NHS Improvement clinical reviewers shows that misinterpretation of x-rays by medical staff who did not appear to have received the competency-based training required by the 2011 NPSA alert is the most common error type. Other error types involve nursing staff and pH tests, unapproved tube placement checking methods, and communication failures resulting in tubes not being checked. The reports included 32 incidents where the patient subsequently died, although given many patients were critically ill before the tube was introduced, it is not always clear whether the death was directly related to the misplaced tube.

Review of local investigations into these incidents suggests problems with organisational processes for implementing previous alerts. This Patient Safety Alert is therefore directed at trust boards (or their equivalent in other providers of NHS funded care) and the processes that support clinical governance. It is NOT directed at frontline staff. Some of the implementation issues identified were:

- · problems with systems to ensure staff who were checking tube placement had received competency-based training
- problems with ensuring bedside documentation formats include all safety-
- problems maintaining safe supplies of equipment, particularly radio-opaque tubes and CE-marked pH test strips.

The resource set that accompanies this alert provides a range of support for trust boards (or their equivalents) to assess whether previous nasogastric tube guidance has been implemented and embedded within their organisations improvement.nhs.uk/resources/resource-set-initial-placement-checks-nasogastricand-orogastric-tubes. It includes briefings to help non-executives and governors to understand the issues, summaries of safety-critical requirements of past alerts. self-assessment/assurance checklists, and learning from reported incidents.

improvement.nhs.uk/resources/patient-safety-alerts

#### Actions

Who: All organisations where nasogastric or orogastric tubes are used for patients receiving NHS-funded care

When: To commence as soon as possible and to be completed by 21 April 2017



Identify a named executive director\* who will take responsibility for the delivery of the actions required in this alert.



Using the resources supplied with this alert, undertake a centrally coordinated assessment of whether your organisation has robust systems for supporting staff to deliver safety-critical requirements for initial nasogastric and orogastric tube placement checks.



If the assessment identifies any concerns, use the resources supplied with this alert to develop and implement an action plan to ensure all safety-critical requirements are met.



Share this assessment and agree any related action plan within relevant commissioner assurance meetings.



Share the key findings of this assessment and the main actions that have been taken in the form of a public board paper.\*\*

- \* For organisations that are not trusts/foundation trusts and do not have executive directors, a role with equivalent senior responsibility should be identified.
- \*\*For organisations without a board, an equivalent publically available alternative to a board paper should be identified eg a report on a public-facing website.

See page 2 for references

Patient Safety

Contact us: patientsafety.enquiries@nhs.net

## Misplaced nasogastric tubes with feeding



# Vincristine: The trail continues



More than 100 people in China paralysed in 2017 from intrathecal Methotrexate and Cytarabine contaminated with trace amounts of Vincristine 2007



### Options for managing Leptomeningeal multiple Myeloma: dangerous recommendations

### Intrathecal agents:

Methotrexate Cytarabine Vincristine Thiotepa

Extracted from table 4 in: Yellu MR et al. Hematol Oncol 2016; 34: 2-8. Article subsequently retracted by the Journal.

Original Article

#### ONCOLOGY PHARMACY PRACTICE

J Oncol Pharm Practice 0(0) 1-9 © The Author(s) 2019

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SSAGE

Abstract
Background: Different international organizations recommend safety measures for the use of vincristine to prevent wrong route administrations. A central recommendation is to use infusion bags instead of syringes to prevent confusion with intrathecal chemotherapy. This study aimed to investigate the implementation of safety measures for vincristine and intrathecal chemotherapies in Switzerland.

Method: We conducted a written survey among hospital pharmacies of all general care and pediatric hospitals in Switzerland (n=102). A responsible person of each hospital pharmacy was invited by email to participate in the online survey in May 2018.

Results: Of 66 responding hospitals (response rate 65%), 27 have a hospital pharmacy preparing parenteral chemotherapy. All of these hospitals prepared vincristine in 2017, while 21 also prepared intrathecal chemotherapy. Of these 21, 16 hospitals prepared vincristine as syringes, with small volume syringes being the most widely distributed dosage form. A switch from syringes to infusion bags was discussed in seven hospitals, and discussions led to plans for switch in two. The most prevalent safety measures were labeling for vincristine and special delivery for intrathecal drugs. Of hospitals preparing boar vincristine syringes and intrathecal chemotherapy, four reported to have see safety measures intratherapy neither for vincristine nor for intrathecal chemotherapy.

Conclusion: International recommendations are not widely implemented in Swiss hospitals. Syringes are still in use and other safety measures are sparsely disseminated. Thus, Swiss vincristine patients are still at an increased risk for wrong route application. Recommendations have to be further disseminated and implementation could be enhanced.

#### Keywords

Vincristine, spinal injections, medication errors, patient safety, surveys and questionnaires

Safe vincristine use in Switzerland:

Lea D Brühwiler and David LB Schwappach 1,2 0

Still a long way to go?

Date received: 11 December 2018; accepted: 12 February 2019

#### Introduction

Over 100 cases of inadvertent intrathecal instead of intravenous administration of vincristine have been reported worldwide since vincristine is in use, with a fatal outcome in the vast majority of patients. 

Invariably patients die or suffer considerable morbidity. The reasons why these errors happened are not always known. In a literature review, Gilbar et al. identified the following possible reasons:

[...] mistaking vincristine for intended intrathecal medication, mislabeling of syringes, i.v. and intrathecal drugs brought into treatment area at the same time, inexperienced medical staff, patient not treated in a specialist unit, treatment given out of normal hours, administration order not checked and an incomplete warning label.<sup>3</sup>

Different organizations such as the World Health Organization (WHO),<sup>2</sup> the Institute for Safe Medication Practices (ISMP),<sup>6</sup> the International

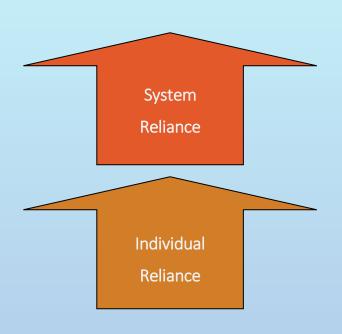
<sup>1</sup> Swits Patient Safety Foundation, Zurich, Switzerland <sup>2</sup>Institute of Social and Preventive Medicine (ISPM), Faculty of Medicine, University of Bern, Switzerland

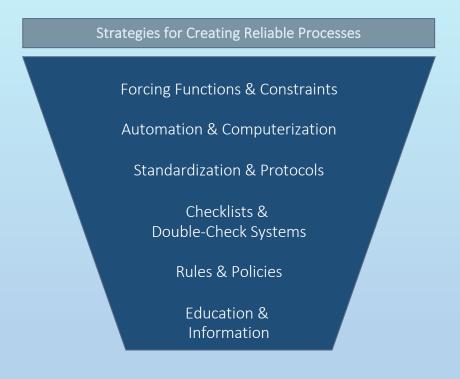
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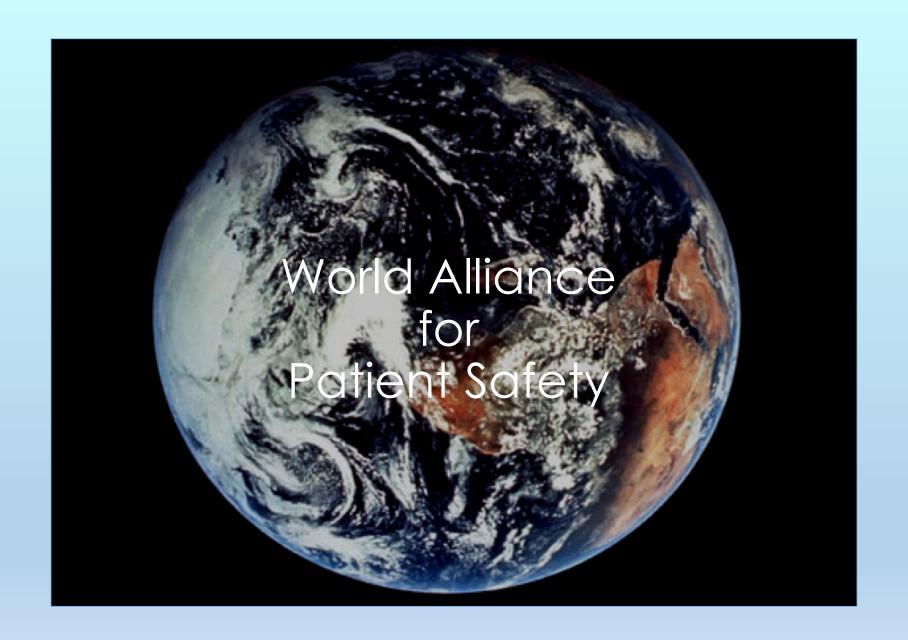


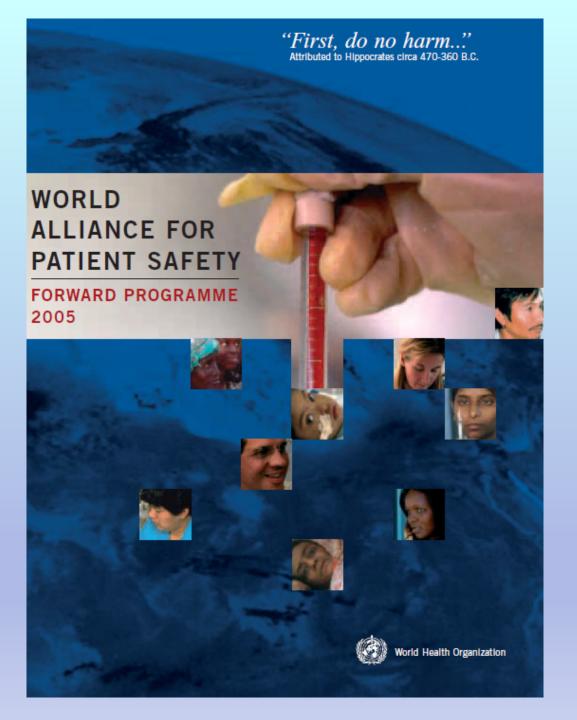
### Hierarchy of patient safety actions





Courtesy Dr Jane Englebright

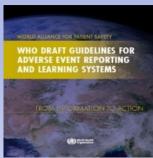
























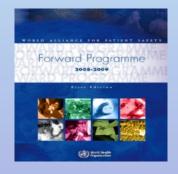


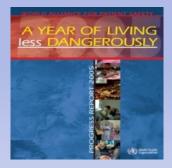
















### In some parts of Africa



- No running water.
- ☐ No clean instruments.
- ☐ No operation masks.
- ☐ No waste disposal.
- ☐ No robust supply chain.
- ☐ No regular soap supply.
- □ No technical support to repair devices.
- ☐ No information technology.

# Patients for Patient Safety Partnerships for Safer Health Care

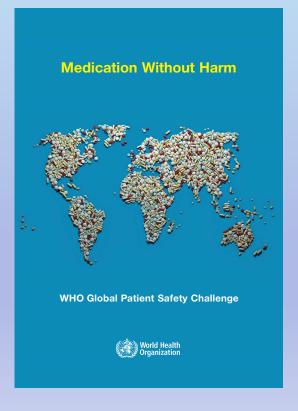




# Patient Safety Challenges







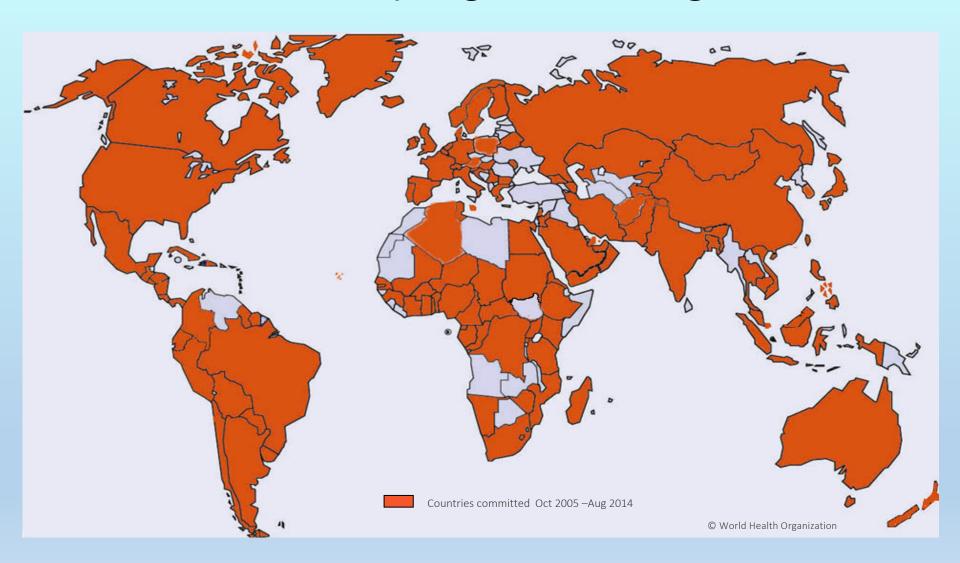
# A culture of cleanliness saves lives



## Countries adopting the challenge: 2005



## Countries adopting the challenge: 2014



### WHO Surgical Safety Checklist



**Surgical Safety Checklist** 



**Patient Safety** 

#### Before induction of anaesthesia Before skin incision (with at least nurse and anaesthetist) (with nurse, anaesthetist and surgeon) Has the patient confirmed his/her identity, site, procedure, and consent? Confirm all team members have introduced themselves by name and role. ☐ Yes Confirm the patient's name, procedure, and where the incision will be made. Is the site marked? Has antibiotic prophylaxis been given within the last 60 minutes? Yes ■ Not applicable Yes Is the anaesthesia machine and medication check complete? □ Not applicable **Anticipated Critical Events** Is the pulse oximeter on the patient and functioning? To Surgeon: ■ What are the critical or non-routine steps? ☐ Yes ☐ How long will the case take? Does the patient have a: What is the anticipated blood loss? Known allergy? □ Are there any patient-specific concerns? To Nursing Team: Difficult airway or aspiration risk? Has sterility (including indicator results) been confirmed? □ No Are there equipment issues or any concerns? Yes, and equipment/assistance available Is essential imaging displayed? Risk of >500ml blood loss (7ml/kg in children)? ☐ Yes ■ Not applicable Yes, and two IVs/central access and fluids

Before patient leaves operating room

(with nurse, anaesthetist and surgeon)

- Nurse Verbally Confirms:
- ☐ The name of the procedure Completion of instrument, sponge and needle
- ☐ Specimen labelling (read specimen labels aloud, including patient name)
- ☐ Whether there are any equipment problems to be addressed

To Surgeon, Anaesthetist and Nurse:

What are the key concerns for recovery and management of this patient?

This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged.

Revised 1 / 2009

### The Third Global Patient Safety Challenge



Medication without harm

#### 28 May 2019

#### Global action on patient safety

The Seventy-second World Health Assembly,

Having considered the report by the Director-General on global action on patient safety;1

Recalling resolution WHA55.18 (2002), which urged Member States to "pay the closest possible attention to the problem of patient safety; and to establish and strengthen science-based systems, necessary for improving patients' safety and the quality of health care"; recognizing that patient safety is a critical element of, and the foundation for, delivering quality health care; and welcoming the inclusion of the need for patient safety in the Thirteenth General Programme of Work, 2019–2023;

Recognizing that patient safety cannot be ensured without access to: safe infrastructure, technologies and medical devices, and their safe use by patients, who need to be well informed; and a skilled and committed health workforce, in an enabling and safe environment:

Noting that patient safety builds on quality, basic and continued education and training of health professionals that ensures that they have the adequate professional skills and competencies in their respective roles and functions;

Recognizing that access to safe, effective, quality and affordable medicines and other commodities, and their correct administration and use, also contribute to patient safety:

Noting further the importance of hygiene for patient safety and the prevention of health care-associated infections, and for reducing antimicrobial resistance;

Noting that ensuring patient safety is a key priority in providing quality health services and considering that all individuals should receive safe health services, regardless of where they are delivered:

Reaffirming the principle of "First do no harm" and recognizing the benefits to be gained and the need to promote and improve patient safety across health systems at all levels, sectors and settings relevant to physical and mental health, especially at the level of primary health care, but also including, for example, emergency care, community care, rehabilitation and ambulatory care;

Recognizing that the safety of patients during the provision of health services that are safe and of high quality is a prerequisite for strengthening health care systems and making progress towards

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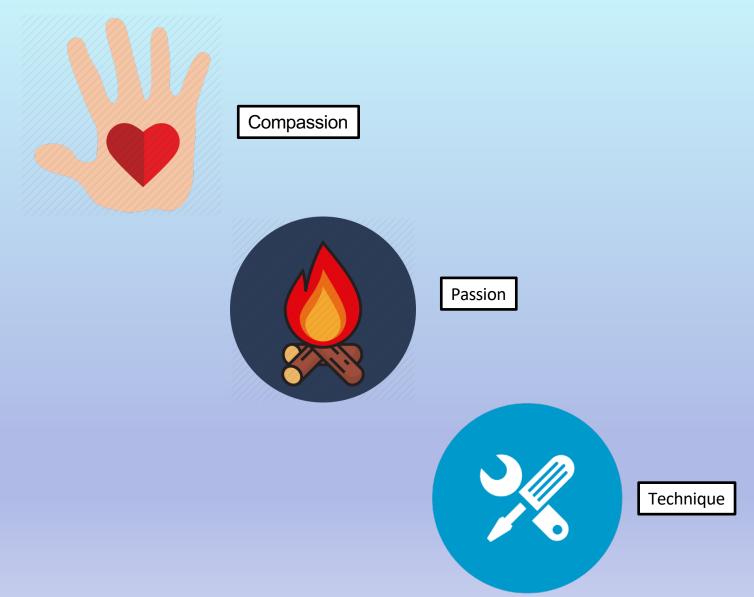
<sup>1</sup> Document A72/26.



#### **Patient Safety Curriculum Guide** Multi-professional Edition



# Safer care: drivers of change



"Either we manage human error, or human error will manage us"

Professor James Reason