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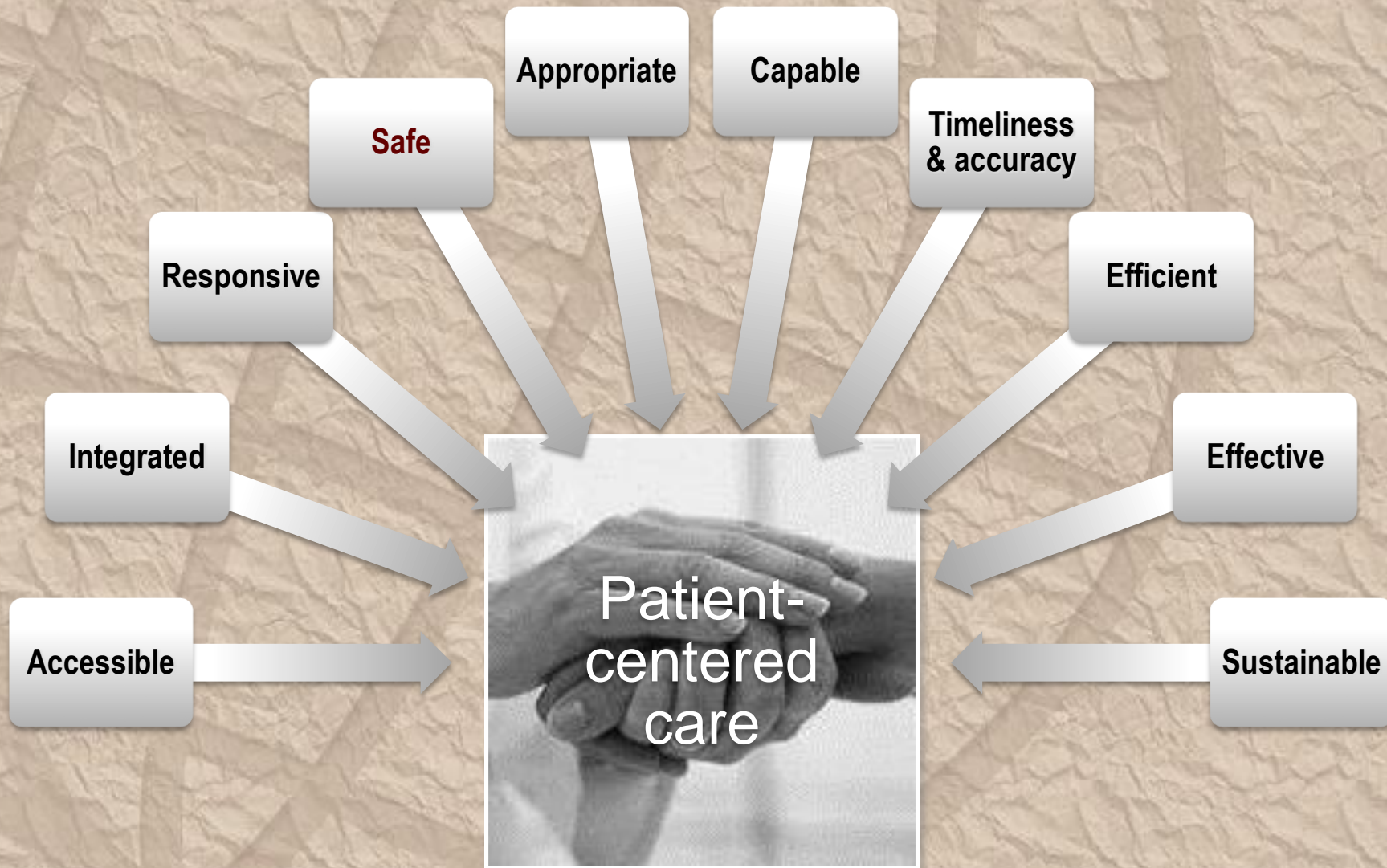
***IAEA / WHO / PAHO Global Healthcare Perspectives Forum F7.2.3***  
**Challenges, Opportunities and Limitations to Improve**  
**Justification of Medical Imaging**

**Lawrence Lau**, Melbourne / AU  
FACR, FRANZCR, FRCR, FAMS  
Chairman, International Radiology Quality Network

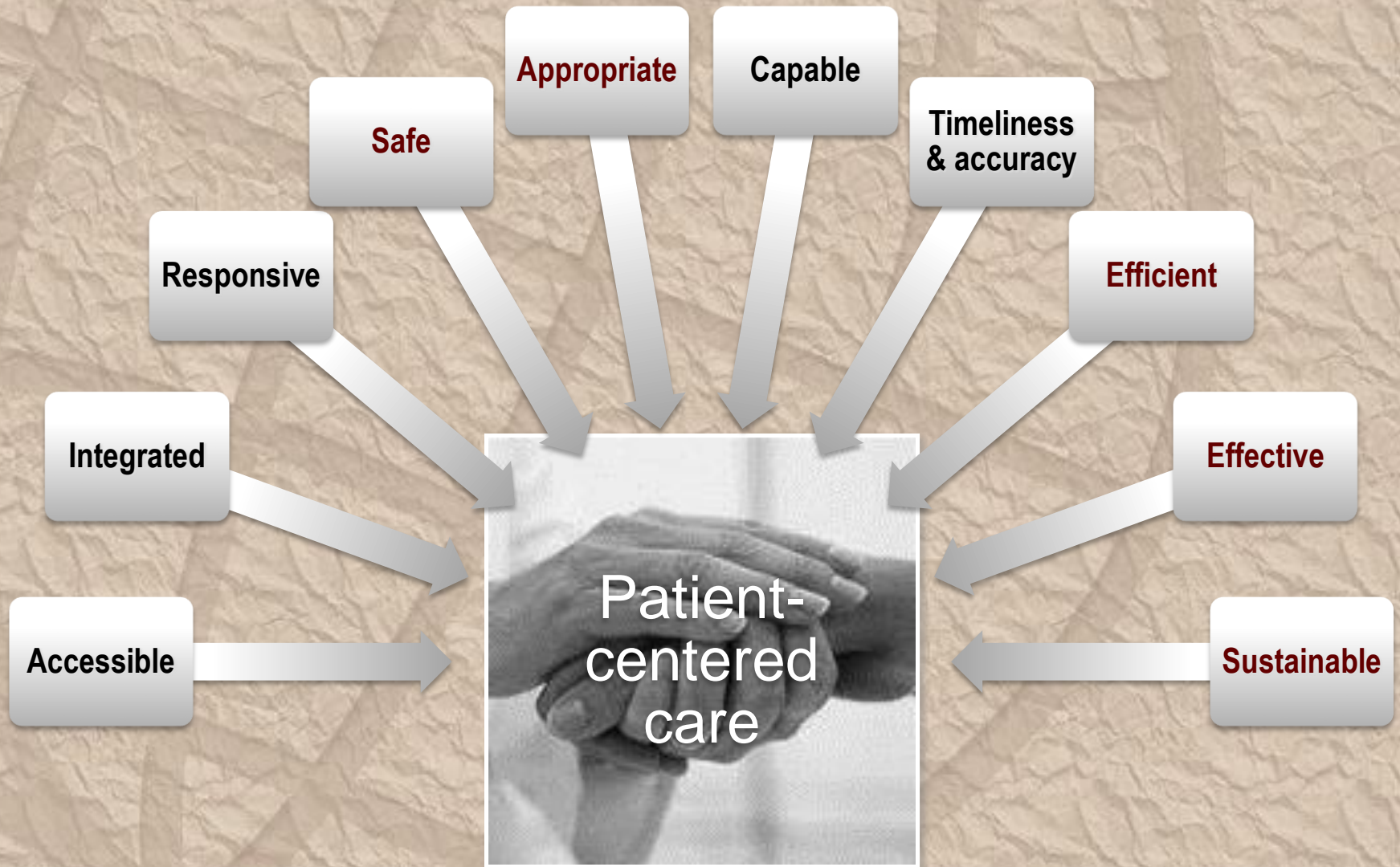
# Learning Objectives

- ❖ To be aware of the quality elements & how justification contributes to patient-centered care
- ❖ To be informed of the emerging challenges & limitations
- ❖ To be aware of the possible solutions to improve justification for healthcare systems & end-users
- ❖ To consider an opportunity to create a multi-sectorial & inclusive global framework to advance justification in the next decade

# Quality Elements



# Justification & Quality



# Objective

**Better quality & safety; patient-centered care & more appropriate**

**use . . . .**

. . . . in medical imaging, the use of referral guidelines as a procedure

justification tool to improve care, use & safety . . . .

# Justification

- ❖ Ionizing radiation procedure will do more good than harm to society; radiation exposure, economic & social issues being considered
- ❖ Objective for a procedure is clearly defined & justified, i.e. it will improve diagnosis or treatment, or provide information to assist care
- ❖ Procedure for an individual is justified, i.e. it will do more good than harm to a particular individual

# Challenges & Opportunities

Challenges, limitations & opportunities to improve justification

- ❖ Healthcare systems
- ❖ End-users

# Challenges

- ❖ Increasing demand
  - ❖ Aging population
  - ❖ Technological advances
- ❖ Inappropriate use: misuse, overuse, underuse
  - ❖ Suboptimal care
  - ❖ Resources
  - ❖ Exposure



# Limitations: Healthcare System

- ❖ Limited resources & access hinder appropriate choice
- ❖ Low general awareness
  - ❖ Radiation issues: risks, safety & protection
  - ❖ Stakeholder's roles & responsibilities
- ❖ Limited evidence & guidance, including availability in a local language
- ❖ Undertaking related actions in isolation

## Limitations: End-user

- ❖ Not recognizing the differences between tertiary & community practices
- ❖ Not keeping up with knowledge & current practice trend
- ❖ Not evaluating patient adequately or providing sufficient or clear data in referral
- ❖ Requesting a procedure which will not change patient management
- ❖ Unaware of procedure justification principle & its use in practice
- ❖ Self referral
- ❖ Undue medico-legal concerns

# Past & Existing Actions

- ❖ Many past & existing justification actions
- ❖ Addressing different stakeholder needs & perspectives
  - ❖ Healthcare systems
  - ❖ End-users

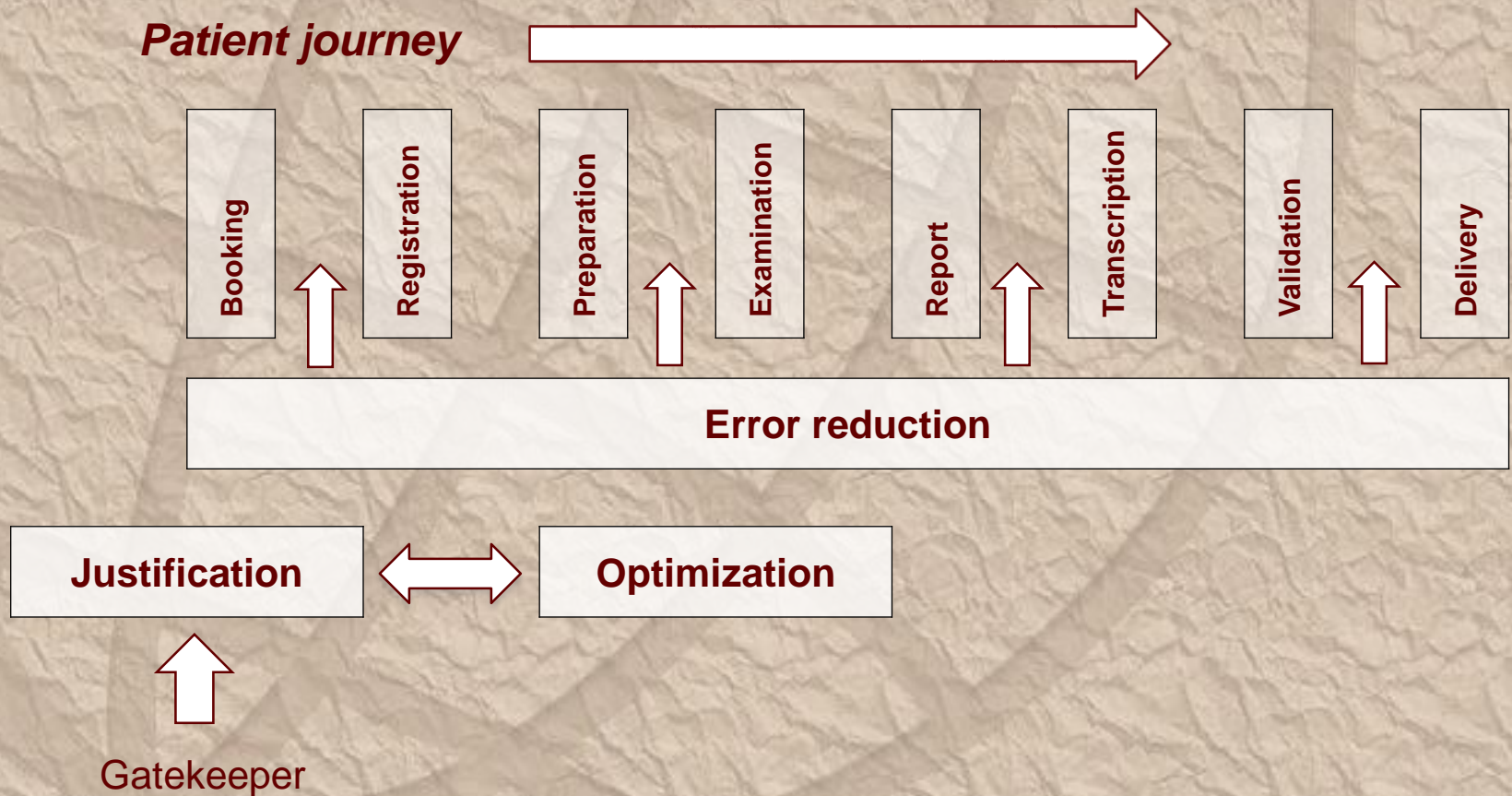
# Improvement Opportunities

**Applicable to healthcare systems & end-users**



# Radiation Protection Measures: When & Where

3 radiation protection measures along the patient journey:



# Implementation Strategies: How

- ❖ Conduct research
- ❖ Promote awareness
- ❖ **Provide education & training**
- ❖ Strengthen infrastructure
- ❖ Implement policies
- ❖ Evaluate impact
- ❖ Apply continuous improvement

# Close the Gap



# Process Improvements

- ❖ Promote leadership
- ❖ Strengthen communication
- ❖ Engage stakeholders
- ❖ Build teams
- ❖ Identify collaboration & synergy
- ❖ Encourage participation
- ❖ Facilitate innovation
- ❖ Foster change
- ❖ Explore social entrepreneurship
- ❖ Reward excellence



# Opportunities: End-users

## ❖ Referrer actions

- ❖ Awareness of justification principles, roles & responsibilities, past records
- ❖ Use referral guidelines & checklists

## ❖ Provider actions

- ❖ Lead & build teams
- ❖ Improve advocacy
- ❖ Collaborate & guide referrers
- ❖ Use implementation tools: indication-specific request forms, computerized physician order entry (CPOE), information sheets, referrer feedback
- ❖ Audit outcome & improve methodology

# Referrer's Checklist

- ❖ Has this procedure been done already?
- ❖ Will the procedure & the result change patient care?
- ❖ Is this the optimal time for the procedure, i.e. not too early before disease could have progressed or resolved?
- ❖ Is this the most appropriate procedure?
- ❖ Has the relevant data & reasons for procedure been indicated on the request?
- ❖ Are all the procedures necessary?

*Adapted from the RCR "Making the best use of clinical radiology services" MBUR, 6<sup>th</sup> edition 2007*

# Opportunities: Healthcare Systems

❖ Actions to strengthen procedure justification in healthcare systems require

+ Strong advocacy by professional organizations & agencies

+ Adoption of policy by local authorities

+ Participation of end-users

**i.e. support of many stakeholders with different expertise & means**

# Timing & Opportunity

- ❖ Increase utilization: 3.6 billion XR procedures p.a.<sup>1</sup>
- ❖ Stakeholders interest & concern about inappropriate use & unnecessary exposure .
- ❖ Opportunity to consider an **inclusive multi-sectorial global platform** to improve justification of medical imaging in the next decade
  - ❖ By leveraging on collective resources & experience
  - ❖ Be part of existing initiative or a new framework
  - ❖ Scope: development, trial, implementation, evaluation & ongoing improvement



<sup>1</sup>UN Records of the General Assembly 2008

# Pillars of Radiation Protection



*IRPA: Four Pillars of Radiation Protection*

# Pillars of Radiation Protection



# Global Platform

- ❖ Strengthen stakeholder communication & collaboration
- ❖ Promote leadership & team building
- ❖ Minimize undertaking actions in isolation
- ❖ Identify synergies & promote cross-fertilization
- ❖ Be the registry for referral guidelines related projects
- ❖ Identify gaps & proactively design future actions
- ❖ Advocate & raise awareness as a coordinated group
- ❖ Mobilize, share & maximize resources . . . . .

## Global Platform - 2

- ❖ Facilitate policy adoption & infrastructure strengthening
- ❖ Explore social entrepreneurship
- ❖ Streamline development & update of evidence-based guidelines
- ❖ Collate, develop & improve access to guidelines & related education tools
- ❖ Trial & implement referral guidelines
- ❖ Evaluate the use of referral guidelines in practice
- ❖ Facilitate innovations toward better end-user participation
- ❖ Reward excellence



# Possible Barriers

- ❖ Different philosophy & stakeholders participation
- ❖ Limited resources
  - ❖ Individual: recruitment & retention, experience, workload
  - ❖ Organisation: resources & fund allocation
  - ❖ System: funding for actions, incentives for change
- ❖ Turnover of key personnel & leadership
- ❖ Program & action co-ordination
- ❖ Lead time for action completion
- ❖ Development of optimal model & supporting infrastructure to bridge the gap between evidence & practice

# Solutions

- ❖ Common long term vision
- ❖ Similar value
- ❖ Stakeholders collaboration
- ❖ Commitment to work together as teams to share corporate memory
- ❖ Inclusive framework with an innovative & proactive work plan

# Conclusion

Medical imaging is indispensable in modern medicine, patient care & saves lives



Procedure justification improves the use of medical imaging & radiation medicine, quality care & patient safety



Past efforts have laid excellent foundation to future actions based on 3 RP measures, 7 implementation strategies & 10 improvement processes



A multi-sectorial global platform could be used as a nucleus for stakeholder collaboration in coordinated actions to improve justification in the next decade



***IAEA / WHO / PAHO Global Healthcare Perspectives Forum***

**Challenges, Opportunities and Limitations to Improve  
Justification of Medical Imaging**

***Thank you very much for your attention***



**Collaboration is  
Strength**