

Patient Safety: Imaging Scenarios, Ethics and ICRP *Jim Malone, Friedo Zolzer, Gaston Meskens, Christina Skourou* 



## Pragmatic Value Set for RP in Medicine

**Core Values** 

**Two Additional Values** 

Dignity/Autonomy

Non-Maleficence/ and Beneficence

Prudence/Precaution

Honesty/ Transparency

Society, ICRP & High Level UN Conferences

**Justice** 

World Medical Association, WMA, 2017 Beauchamp and Childress

## Moral Compass & Professions

- For professions/policy it cannot be just personal
- Not only determined by Public Attitudes.
   Repugnant (Eg: Slavery, capital punishment).

 Uncertainty and Harms



## Scenario 2 Imaging: Mr Grey **Ultrasound Referral**

- Mr Grey referred for ultrasound for upper abdominal pain.
- GP suspects gallstones but does not mention this in referral.
- Mr Grey is Chairman of hospital. Staff add complex CT Scan. Risk from CT is explained, and consent is obtained.
- Complex CT inappropriate according to guidelines.
- found on US.

<ul> <li>Staff please</li> </ul>	Staff pleased they gave their chairman of their best.				
Dignity	Beneficence,	Justice	Prudence	Honesty	
Autonomy	Non-		Precaution	Transparency	

(-)

(N)

(-)

(N)

**(y)** 

(N)

Excellent scans performed promptly, reveal gallstones, which are also

# Maleficence

(-)

(N)

**(y)** 

## Scenario 4: Mr Viridian Mistake in Referral

- Mr Viridian attends nuclear medicine for a bone scan, as part of follow up of his GU cancer, organised by urologist, Dr Coral.
- A lung scan was incorrectly requested and performed.
- However, clinical details provided appropriate to a bone scan.
- Report on the scan to Dr Coral, who spots the problem.

**Maleficence** 

(y)

**(y)** 

Dr Coral and the head of nuclear medicine, Dr Burleywood, decide not to tell the patient, and not to report to authorities.

•	Repeat scar	ns are performed	d without cha	arge to the pati	ents
	Dignity	Beneficence.	Justice	Prudence	Honesty

<ul> <li>Repeat scar</li> </ul>	Repeat scans are performed without charge to the patients				
Dignity	Beneficence,	Justice	Prudence	Honesty	
Autonomy	Non-		Precaution	Transparency	

**(y)** 

(-)

(-)

## Scenario 7: Ms Magenta **Pregnant Patient**

- Ms Magenta, aged 40, attends her local hospital for an elective abdominal CT scan.
- Asked if she is pregnant and replies No. States her periods are highly irregular. The hospital decides to proceed with the examination.
- Ms Magenta is having ongoing IVF treatment, but does not reveal this.
- Visits Obstetrician, who indicate she is probably pregnant.

Maleficence

(-)

(N)

**(y)** 

(N)

- A friend explains that if pregnant the scan could be damaging.
- Advice she receives, from hospital and various websites shock her.

Dianity	Ronoficanco	lustica	Drudence	Honosty
	· · · · · · · · · · · · · · · · ·			

Dignity	Beneficence,	Justice	Prudence	Honesty
			_	

Dignity	Beneficence,	Justice	Prudence	Honesty
Autonomy	Non-		Precaution	Transparency

(-)

(-)

(N)

(-)

Dignity	Beneficence,	Justice	Prudence	Honesty
Autonomy	Non-		Precaution	Transparenc

### Scenario 3: Dr. Celadon, Issues of consent

- Ms Ruddick, +/-personality disorder, recurring serious cancer.
- She is 8 weeks pregnant at the time of presentation.

**(y)** 

**(y)** 

- Dr Celadon, a radiation oncologist, explains her options and the impact of each to both her and her unborn child.
- Patient demonstrates poor understanding of both her condition and
- her options. To avoid delay Dr Celadon offers her treatment he believes is best,
- and Ms Ruddick consents. Doubt about her capacity to consent.

<ul> <li>The treatm</li> </ul>	The treatment chosen will prolong Ms Ruddick's life enough to come				
to full term	to full term and carry some risk to foetal development.				
Dignity	Beneficence,	Justice	Prudence	Honesty	
Autonomy	Non-		Precaution	Transparency	
	Maleficence				

**(Y)** 

**(Y)** 

## Scenario 7: Ms. Peyne, Choice of treatment technique

Maleficence

**(Y)** 

(n)

Ms Payne, aged 82, is a breast cancer survivor, an active painter and an avid book reader.

- She now presents with 3 intracranial metastases and is offered stereotactic radiosurgery (SRS) by Dr. Periwinkle, a radiation
- oncologist. Upon further investigation, 2 additional lesions are detected which put to question the benefit of SRS.
- potential damage to her cognitive function.

Dr. Periwinkle offers her SRS over whole brain RT to protect her form **Dignity** Beneficence, **Justice** Prudence Honesty

Non-**Precaution Transparency** Autonomy

## Scenario 10: Ms. Perylene, What nobody knows

Ms. Perylene has recently been hired as a medical physicist by Medela Clinic.

- When asked, she claimed competence in HDR brachytherapy so as not to put herself down in the eyes of her new colleagues.
  - She is now asked to plan an HDR treatment.
- Her lack of competence, and the lack of a second check, lead to the mistreatment of a patient.
- Ms. Perylene investigates and decides that the impact of the error is insignificant and therefore does not need to be reported.

**Prudence Dignity** Beneficence, **Justice** Honesty **Non-Malefic Autonomy Precaution Transparency** 

(N)

### Scenario 5: CT Dose Dilemma.

- St Elsewhere's, a public facility, adjoins a private hospital.
- Both have CT scanners. The equipment in the private is newer and has better low dose facilities.
- Public hospital lacks capacity for its imaging needs, and some patients referred to the private for CT imaging
- Audit shows older patients preferentially referred private.
- Further investigation indicates older patients also have better private insurance.

Dignity	Beneficence,	Justice	Prudence	Honesty
Autonomy	Non- Maleficence		Precaution	Transparency
(-)	(-)	(-)	(-)	(-)
(-)	(N)	(N)	(n)	(N)

#### **Scenario 10: Failed Equipment**

- Black Tulip Hospital Interventional Radiology Suite has a tube failure. Urgent replacement by the company three days later.
- Physicist, Dr Russet, contacted to test if system is safe.
- Dr Russet is commissioning a CT elsewhere, and advises he will be available in four days.
- Dr Cinnamon, Head of Interventional, is reassured by the company

**Non-Maleficence** 

(-)

(N)

**Autonomy** 

**(y)** 

(N)

•	35 patients	receive the hig	h doses. Dr	Carmine decide	es they
	Dignity	Beneficence	Justice	Prudence	Honesty

(-)

**Precaution** 

(-)

**Transparency** 

(-)

	engineer, and decides to take patients immediately.
•	Dr Russet tests the equipment, it appears a filter missing and
	exposure protocols incorrect, giving doses x 2 to 10 high.

## **Moral Compass**

#### Personal Ethical Dilemmas for Professionals

How does ethical reasoning proceed?

- Situations are complex
- Any facts will matter sometimes
- Consider complex situations in sufficient detail
- Ethics is Essentially Practical
- Obligations v ordinary
- And very numerous (ie: the law ++)
- What I ought to be doing now ...?
- Remember: What ought to be done is quite distinct from What can be done.



#### Ethics, Values Medicine and ICRP

#### ICRP advice and legal systems:

- (Incomplete) science
- Value judgments
- Experience
- ICRP detached from MEDICAL ethical scholarship and practice
- Revisited in ICRP 138.
- Be aware that for medicine the origins, history, practices and scholarship are sufficiently different ----



## **Moral Sensibility**

#### Good Practice, Protocols, and the Law

- AAPM Survey
  - Unpublished, 2015, (N = 969)
  - 49% never met Ethics dilemma in workplace
  - 31.5% rely on personal moral compass only

- IPEM SCOPE:
  - Professional paper on regulation, standards etc. Ethics 0.5/~50 pages

 Guidelines, protocols and law, determine behaviour & culture.



## Conclusions and Uncertainties

