



Ethical Framework for Medical and Quasi-Medical Procedures



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Layout

- Ethics: ICRP and Medical
- Scenarios: Patients and (Quasi Medical) Non Medical Exposures
- Reflection re Framework and Future
- Conclusions



Ethics: ICRP and Medical Systems

- Different, Incomplete Overlap
- ICRP purpose built; detached from mainstream ethical scholarship and practice
- Medical: comprehensive; strong scholarship; ignores radiological;
- Medical system has its own problems
- Low recognition of ICRP values in medicine.
- RP, by being separate, has advantages, but is isolated.



Who Cares about this?

- EC, HERCA, IAEA, WHO, ILO, IRPA, NEA, ICRP et al.
- Justification, Overtreatment
- *"A significant and systemic practice of Inappropriate Examination in radiology"* EC/IAEA/WHO et al.
- Some Professional Bodies, Image Gently, Image Wisely, Choose Wisely,
- **Not Cardiologists**
- **Not HTA**
- **Not the AAPM**



Hopper: New York Movie, 1939

Ethical Issues

- ??????????????????????
- Autonomy and Dignity
- Incomplete knowledge, DR;
- Uncertainty, confusion with Professionals, Patients, Public
- **Dysfunctional Relationship w/ press/ public**
- **Poor culture of Transparency and public accountability**
- ++++++
- IRPA and ICRP consultations
- Principles stand up in medicine and in Fukushima



British Medical Journal (14 April 2012)

Medicalisation and overtreatment have long been a feature of artist Damien Hirst's work

- Obsession with medicines replaced God/Religion
- Instruction/advice, from on high, on how to live
- **Low recognition of "word" Justification in medicine**



Damien Hirst

Neglected Themes needed in Medicine

Core Themes/Values		Valued in all Cultures High Recognition Beauchamps and Childress since 1979
Dignity and Autonomy	Beauchamps, Childress Zolzer and others	
Non Maleficence including		
Beneficence		
Justice, access, etc.		



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Two/Three additional Themes	
Prudential/Precautionary	Lochard in (IRPA 12),
Openness, Transparency etc	Malone 13.
Utilitarian Principle/HTA	eg. For Asymptomatic Patients



SCENARIOS 1: Doctor's Knowledge

- Many radiologists; eg:
- 50% of Physicians in 2 UK teaching centres
- 20 – 45% of radiologists inappropriate
- Specialties even higher, eg low back pain investigations, and cardiac cath.

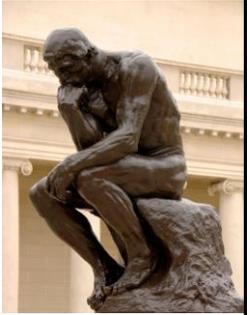


Chest X-Rays	% Cardiolog
0.5	9
1	13
3	49
500	29

Auto-	Benef	Justice	Precaut-	OTA	HTA UTIL--
-	(Y)	-	-	-	
N	N	N	N	N	

Scenarios 2: Orthopaedic, Pre Op Chest, Tallaght Incident

- Orthopaedic surgeon Mr A, public clinic in hospital Y, weekly. New and follow up visits of injuries and elective cases.
- He insists every patient attends be sent to radiology by the nurse, and will not see a patient without a film folder from radiology.
- Similar for insistence on pre op Chest



Auto n--	Benef --	Justice	Precaut-	OTA	HTA UTIL--
-	(y)	(y)	-	-	-
N	N	N	N	N	N

Scenarios 3: Pregnant Patient

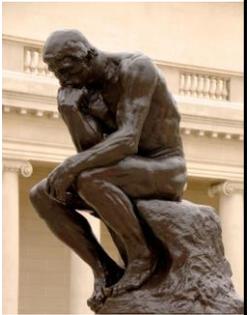
- Department policy : ask patients at reception if they are pregnant.
- Does not check or follow a "10day" type rule as these are "time consuming/inconvenient".
- Patient has elective pelvic CT and turns out to be 10 weeks pregnant.
- She is ++ distressed and considers seeking a termination.
- ICRP: exposure of foetus during examination of the mother is regarded as a medical exposure.



Auto --	Benef --	Justice	Precaut-	OTA	HTA UTIL--
(y)	(Y)	-	-	-	?
N	N	N	N	N	N

Scenarios 4: Self Referral etc

- Dr B, Interventional Cardiologist.
- Private rooms in complex with large imaging facility.
- Explains the radiation (and other) hazards associated with CT, coronary angiography and angioplasty, and explains the radiation risk is unproven.
- Some unreferrred **worried well**.
- Procedures on request w consent
- Fee for consultation and for the imaging.
- Undisclosed shareholder in facility.



Auto n--	Benef --	Justice	Precaut-	OTA	HTA UTIL--
Y	-	-	-	Y	?
N	N	N	N	N	?

Medical and Non Medical 1

MEDICAL

- Justified Medically (3 levels)
- Benefit Individual irradiated
- Consent is Given
- Confidentiality required and assured
- Governance, special features



NON MEDICAL

- **How and Who Justifies**
- **Benefit not to individual**
- **Consent not necessary**
- **Confidentiality breached in many ways**
- **Governance, disseminated + with many other features**

Scenarios: Non Medical Exposure 2

- Woman (28) at Airport. Sniffer finds small amount of drugs in hand luggage. Suspicion she may be mule. Refuses permission and potentially pregnant. Customs officer insists and hospital does the scan. She is pregnant and no drugs.
- New EC BSS reclassifies; note some expediency
- Issues around Justification, benefit to individual, confidentiality, consent, and governance arrangements
- Hospital based and the rest.

Auto n--	Benef --	Justice	Precaut-	OTA	HTA UTIL---
(Y)	-	Y	-	-	?
N	N	N	N	N	?



University of Berne CT Study, Flach et al. Lot of work here in Switzerland

Non Medical Human Exposures 3

- Baby P presents at the Emergency Dept with a broken arm and bruising. The x-ray suggests several older fractures also.
- Whole body surveys of P's siblings aged 3 and 6 are undertaken (+/_ 20 views)
- Are these medically indicated in the ordinary understanding of this term
- Screening programme



Auton --	Benef --	Just --	Precaut-	OTA	HTA UTIL---
-	(Y)	(y)	-	-	-
N	N	N	N	N	N

Observations

- Themes give an intuitively clear and credible basis for evaluating events/scenarios
- Approach would have a higher recognition in medicine and might facilitate tech transfer of RP message



22. Conclusions

- **Be reflective, deliberative ---**
- **3 + 3 Themes could work**
- They need to be flagged explicitly, even if they can be derived
- Need more work to align with ICRP system but this does not have to be visible to medical community
- May also need regional alignment
- **To some extent already happens in medicine: HTA/overutilization replaces justification in US.**

