

HISTORIC OPTIMISATION

UTILITARIAN* ethics applied classical CBA to address the question -

‘How much does it cost and how many lives are saved?’

The use of Collective Dose emphasised the protection of **SOCIETY** and the inability to take account of individual risk

** ‘The doctrine that the greatest good of the greatest number should be the guiding principle’ Oxford English Dictionary*

1990 RECOMMENDATIONS ON OPTIMISATION

This procedure is to be constrained by restrictions on doses to individuals (**Dose Constraints**) so as to limit the inequity likely to result from the inherent economic and social judgements.

CURRENT POLICY

Recommendations since 1990 are in terms of

- firstly restrictions on individual dose
- then a requirement to optimise

A shift from **utilitarian** values, so as to include the recognition of individual rights by using **Egalitarian*** ethics, an equity-based system

* 'The principle of equal treatment for all persons' Oxford English dictionary

JUSTIFICATION

The practice leading to an exposure must produce an overall benefit

It is a policy matter for decision makers,
-with radiological protection issues
being a minor input

For medical doctors, it is a matter both
of the generic procedure and then the
individual referral

PRINCIPLES OF PROTECTION

For generically justified medical procedures

Justify the examination

individual-based criterion

Optimisation

Reference Levels as indicators of
good practice

PRINCIPLES OF PROTECTION

For an already justified source or for an uncontrollable source-

Doses for Protective Action

individual-based derivation, providing
a basic level of health protection

Optimisation

source-related process to achieve
the optimum level of health protection

DOSES FOR PROTECTIVE ACTION

PEOPLE

10 x



AVERAGE NATURAL BACKGROUND



DISCHARGES

0.1 x

EXEMPTION

0.01 x

OPTIMISATION OF PROTECTION

The 'stakeholder' process of involving most affected individuals is an important approach

- EMPOWER THE WORKFORCE

- ENGAGE THE PUBLIC(S)

- Leading to the

- best level of health protection

ICRP IN THE 21st CENTURY

MC TASK GROUP

- Develop Ethical basis of protection
- Medical exposures separate
- Define Doses of interest for risks
- Justification For practices
- Doses for Protective Action
- Based on natural background
- Optimisation Replace differential equations with common sense
- Stakeholder involvement
- Protection of the Environment