Dose Reconstruction
&
Special Exposure Cohort

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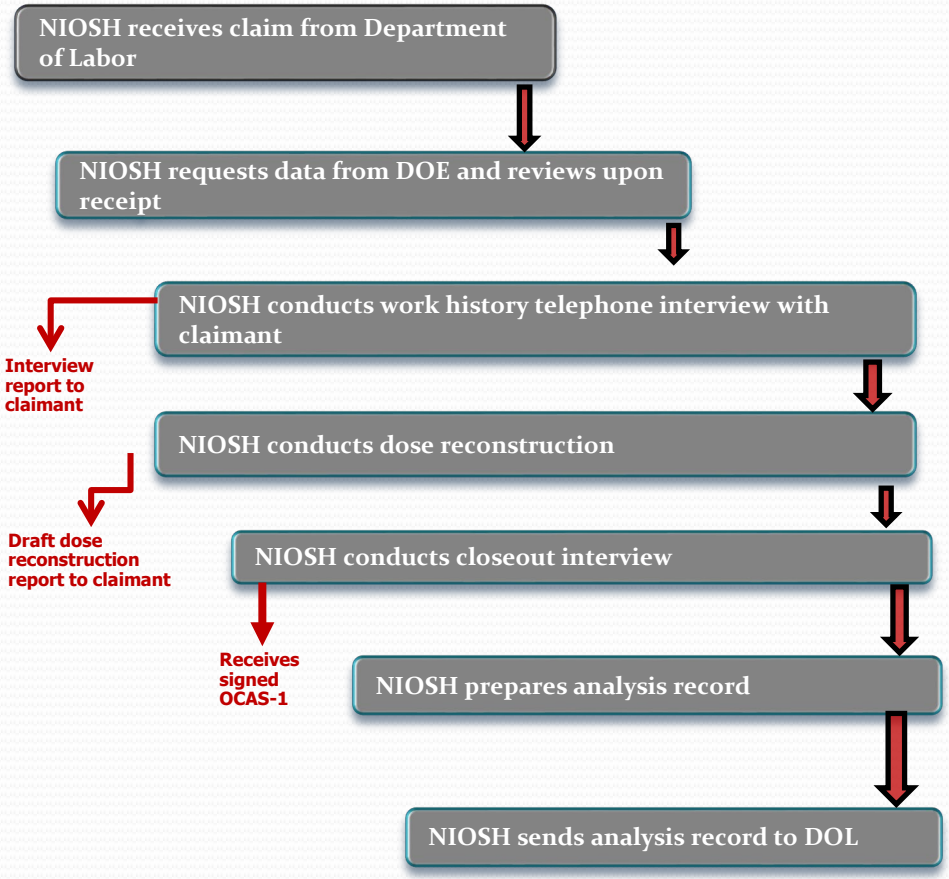
NIOSH's role

- Reconstructs dose
- Probability of Causation (PC) guidelines
- Evaluates Special Exposure Cohort (SEC) petitions
- Supports Advisory Board

Dose Reconstruction Process



Basics of Dose Reconstruction

- Use individual radiation monitoring data if available
- Evaluate potential for undetected dose
- Use coworker radiation monitoring records
- Use workplace radiation monitoring data if necessary and available
- Use knowledge of radiation sources and work processes to develop exposure models
- Use recommendations established by national and international organizations

Frequently Used Terms

- External Dose
- Internal Dose
- Occupational Medical Dose
- Environmental Dose

Probability of Causation

- The Act sets the guidelines for determining probability of causation (PC or PoC)
- Eligible for compensation if the cancer was “at least as likely as not” caused by radiation on the job
- Is there at least a 50-50 chance that a worker’s cancer was caused by occupational radiation exposure?

NIOSH-IREP

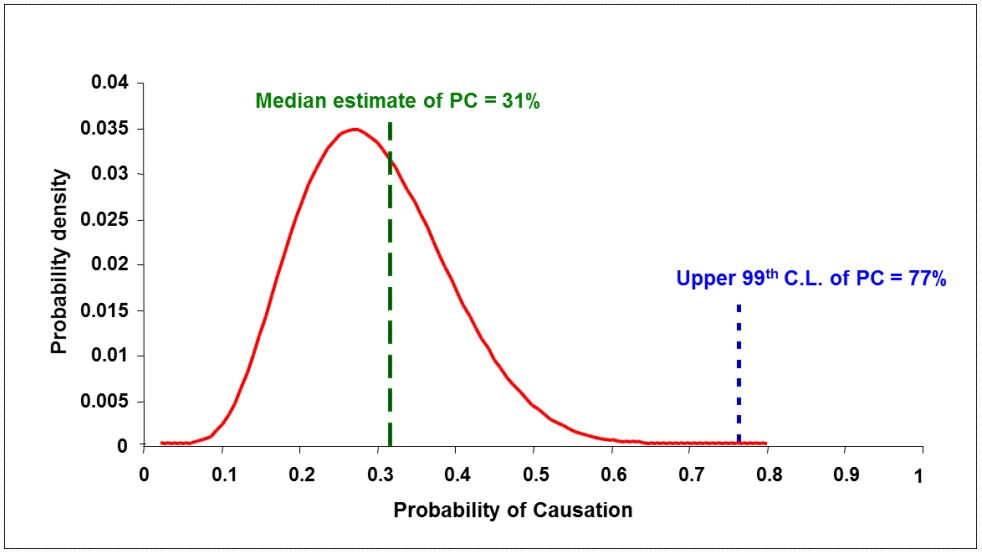
- Congress directed that the 1985 NIH cancer risk tables, as periodically updated, must be used in judging radiation cancer claims under the Act.

- Therefore, NIOSH customized IREP for use by the Department of Labor (DOL) in adjudicating claims under EEOICPA.

PC Calculation Cancer Risk Models in NIOSH-IREP

- The PC is based on estimates of radiation cancer risks from epidemiologic studies of exposed populations.
- However, it is calculated according to each claimant's unique set of circumstances.
- In IREP, PC is expressed in percent (e.g., a PC of 0.5 is expressed as 50%).
- A claim is considered compensable if PC is greater or equal than 50% at the upper 99^{th} credibility limit.

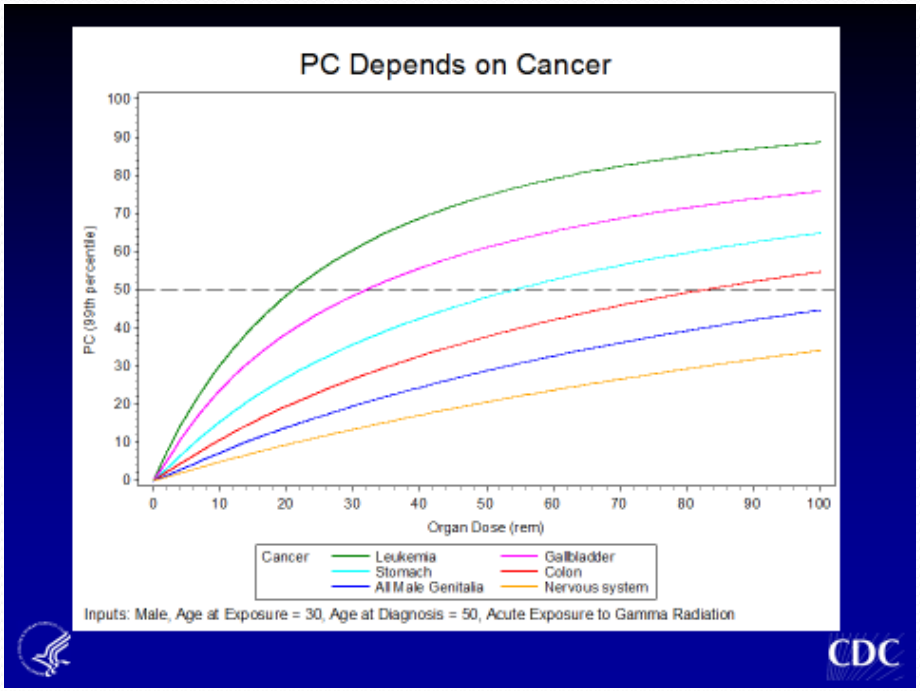
Applying Credibility Limits



Cancer Risk Models in NIOSH-IREP

- Based mainly on the Japanese A-bomb survivors study, but also other epidemiological studies
- 34 different cancer risk models in NIOSH-IREP: Some types of cancers require running more than one IREP model to see which one produces the highest PC.

PC Depends on Cancer



SEC Petitioning Process

- There are seven main phases that a petition will go through before it can be added as a new SEC class:
  - Petition submission
  - Qualification
  - Evaluation
  - Evaluation Report presented to the Advisory Board on Radiation and Worker Health (Advisory Board)
  - Advisory Board recommendation
  - Secretary of the Department of Health and Human Services (HHS) designation
  - Submission to Congress

Who can file a petition?

- Former or current worker
- Survivor of a former worker
- Labor organization representing a worker or class
- Anyone authorized to represent any of the above

SEC Petition Basis

- A description of the basis for believing records and information available are inadequate to estimate radiation doses based on one of the following:
  - Lack of monitoring
  - Destruction, falsification, or loss of records
  - Expert report
  - Scientific or technical report

Review of SEC Petitioning Process

NIOSH receives or initiates petition

NIOSH qualifies petition

NIOSH evaluates petition (180 days)

Sends evaluation report to Board

NIOSH presents evaluation report to the Advisory Board

Advisory Board sends recommendation to Secretary HHS (21 days)

Possible review by Board's contractor

HHS Secretary's final decision to Congress (30 days)

Decision is final (30 days)

If class is added, then claims go to DOL

If class is not added, then petitioner can appeal the final decision

DCAS Website

www.cdc.gov/niosh/dcas

General Information

513-533-6825

dcas@cdc.gov

SEC Petition Counselor

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Questions

Questions can also be submitted to DEEOIC-Outreach@dol.gov

Thank you very much for attending the DEEOIC Webinar