WHO BioDosNet

Hanover Meeting

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BioDosNet
The dicentric in blood lymphocytes

- In triage mode
- In full dose estimate mode
• BioDosNet is not in competition with other national or international networks and arrangements. Work alongside as and when necessary.

• WHO intends to set up an ESR network too. We are not in competition!
Basic Structure

See Figs 1 and 3 in Blakely et.al. ms for Radiat Res

- A steering committee
- Reference labs
- Core lab
- Associate labs
Experience in dicentric biodosimetry is a must, plus other techniques (MN, PCC)
In-house calibration curves
QA programmes and clearly written protocols (ISO)
Participation in inter-comparisons
Publications record
Sustained expertise, training programmes
Compliance with appropriate national laws and regulations is a plus
Independent from WHO funding is a plus
Ref Lab Capacity Criteria

Throughput must be 30 triage cases/week sustained for 4 weeks (higher throughput/ longer sustainability is a plus)

Demonstrated capacity to process 30 triage samples or more per week in emergency is a plus

Available consumable resources (reagents, plastic-ware) to analyse 120 samples in 4 weeks

After triage, ability to follow up with a suitable more detailed analysis (up to 500 met/case) for those cases who need further dose refinement to support clinical management
11. Core Laboratory

A core lab is selected by the steering committee from among the reference labs
Selection criteria – geographical, size of event
Assigned to deal with the particular event to facilitate coordination of sample distribution, processing, analysis, collating results from participating labs and interpretation. It acts as the focal liaison channel between BD and the medics
12. Core Lab Tasks in Emergency

Response on a 24/7 basis when activated
Receiving and coding samples
Outsourcing, coordination of participating labs
Sample processing and analysis
Collates data from participants, interpretation and exposure assessment
Feeding results back to the requesting authority in the accident state
Provides consultation on a case-by-case basis as required
13. Reference Lab in "Quiet" Time

Fully functioning biodosimetry lab
• Calibrated, QA, relevant R&D etc
• In-house staff training

Participating in exercises
• at least once per 2-3 years to hold all-network exercise with some 10 samples/lab
• Other smaller type of exercises and tests may be carried out more frequently (desktop exercise, communication drills, national, regional exercises)
Membership Audit and Recognition

• Reference labs will sign on via a Memorandum of Understanding. WHO has a generic form.

• QA/QC programme in place- not necessarily the cytogenetic ISO.

• BioDosNet will audit lab and award membership certificate. Criteria set by steering committee who will also appoint auditors.

• Will lead to a “WHO Laboratory of Excellence.”
14. Candidate Reference Laboratories

UK HPA
France IRSN
Germany BfS
Finland STUK
Canada HC
Japan NIRS
Argentina ARN
Ukraine IMR Kharkiv
Russia Obninsk MRRC

Enough?
Geography?
Some outstanding issues

Tasks for Steering Committee or working groups:

Written guidance on

• sample collection and transport
• coding criteria
• prioritization of patients
• criteria for scaling-up / down as the event unfolds
• consumables-sharing, stockpiling
• password protected web site for background documents, exercise paperwork, regularly updated contact info, breaking news etc