

WHO BioDosNet

Hanover Meeting

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The Name



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**

Reference Lab Capabilities Criteria



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