

Lettre à la rédaction

Dear Sir

I wish to inform you that TIARA (Treatment Initiatives After Radiological Accidents) is a project supported by European Commission and is part of the Preparatory Action for Security Research (PASR). At the end of this project, a Training Course was organized by the TIARA consortium including research and emergency organizations involved in the treatment of radioactive contamination. The course took place on 5-6 February, 2007 in Fontenay-aux-Roses (Commissariat à l'énergie atomique centre).

100 participants principally from the members of the European Community but also from Canada, Israel, Japan, Norway, Serbia, Switzerland, and Turkey attended the Meeting. Among participants next occupational fields were represented: medical responders, national and international authorities, emergency and radioprotection teams and researchers in pharmacology.

Highlights of the Course have been reported as following by N. Stradling, international expert in the field of the treatment of radionuclides contamination.

A major strength of TIARA is the range of expertise of the consortium members. Often committees comprise only scientists or medical officers but in this case a marriage has occurred between internationally recognised experts in dosimetry, treatment, emergency response and psychology. Medical officers are certainly key members of the consortium since it is they who need to take the key decisions on treatment. It is vitally important that some of them are among the few that have first hand knowledge of treating internal contamination; they also have close contact with others who have such experience. Due to their expert status, consortium personnel are often in contact with members of national committees, international organisations, staff in other EU projects or senior health physics personnel in industry or research. This increases the networking potential of TIARA substantially.

One of the key objectives of TIARA is to present information in such a way that the decision-making process is simplified, especially those who do not have sufficient background in dosimetry or in the use of biokinetic models. To my knowledge this is the first time that, for a number of radionuclides, the results of measurements and assessed doses have been presented in a simple graphical form whilst at the same time reflecting the uncertainties in physical and biological behaviour which will be associated with the aerosols formed in the aftermath of a malevolent act. The use of these graphs in conjunction with the detection limits of the radionuclides in the body or excreta will provide immediate information on the most appropriate method of analysis to aid comments on public reassurance of low doses or decisions by medical officers concerning treatment. Crucially, TIARA considers the consequences of different courses of action which medical officers might consider.

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A second key issue of project TIARA is the consideration it gives to the chemical forms of the radionuclides actually formed as a consequence of malevolent acts. Often the approach to treatment in international handbooks or guidance notes is over simplistic in that it assumes that pure chemical forms of the radionuclides are involved. This is most unlikely to be the case and appropriate consideration is given by the TIARA consortium to the relevance and appropriateness of treatment for a range of chemical forms. It is likely that in many cases treatment will be ineffective. In these circumstances, the assessment of doses particularly for the purpose of public reassurance will be even more important.

When treatment is considered appropriate, the increased efficacy of currently accepted substances is an important issue. The development of an aerosol form of DTPA, about 2 μm AMAD, which is capable of depositing in relatively large amounts in the deep lung, is exciting, although further animal studies using masses of plutonium representing more realistic human exposures are needed to realise the full potential of this procedure. Interestingly, current research with DTPA in the USA concerns its oral administration since this method of administration is considered appropriate for large numbers of people who may have become significantly contaminated.

Clearly, the high regard with which project TIARA is held attracted lecturers from other EU organisations and international organisations such as WHO and IAEA. This was much appreciated by the Consortium and attendees, and gave the course an important added dimension. It was also significant that the course attracted many who were also much experienced in radiological protection matters. Inevitably, discussions were lively and informative, and added to the overall success of the course.

Unfortunately, due to financial and time constraints the course was only two days long. However this was overcome due to the superb luncheon arrangements and evening social programme at the Louvre which enabled all participants to get better acquainted and allowed substantially more time for discussion.

The TIARA consortium, but in particular the coordinator, Florence Ménétrier and support staff are to be congratulated on arranging a fine course. The CEA provided an excellent venue and facilities including the use of the building which housed the first French atomic reactor (Pile Zoé) dating from 1948.

The EU should be commended on their foresight in supporting this project under PASR. However, much work remains to be done (consideration of other radionuclides, chemical forms, mixtures, improvements to treatment, etc.) and hopefully such vital work will continue to be funded.

N. Stradling, F. Ménétrier, Ph. Béard
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