READ ME FIRST

These presentations in Powerpoint format were prepared because the Committee on the Teaching of Chemistry of IUPAC and the Commission on Toxicology identified a need for some elementary toxicology to be taught to chemistry students, even at school. Thus the prime aim of the authors was to provide chemistry teachers with a teaching resource on the fundamentals of toxicology from which they could select material appropriate for their own local requirements, supplementing it with examples relevant to the students’ own experience. It is hoped that other educators in areas other than chemistry may find this material of use by selecting those parts which are suitable for their students. In other words, from this resource, educators should select the most appropriate parts to explain fundamental ideas in toxicology so that their students can understand the hazards and risks associated with chemicals. It is expected that educators using this material will use their own expert judgment in modifying it to suit their own students and local conditions.

Although the material is prepared in the form of Powerpoint presentations, it is not necessary for it to be presented on computers in this form. The Powerpoint programme permits handouts to be printed, and overhead viewfoils to be prepared. In the absence of an overhead
projector, individual slides can be printed out on A4 paper and used as a means of presenting the material selected by the teacher.

The material is divided up into seven sections with an introductory presentation to be considered by the prospective user. This introductory presentation lists the educational objectives of each section and suggests some ways in which the material can be used. There is also a section on assessment and a section on ethics. While each section contains its own self-assessment questions of the true or false variety, the assessment section also contains questions which require an answer in the form of a short essay. For these questions which require longer answers, outline answers are given. Again the authors leave it entirely to users to select what they require and would expect each user to devise in addition their own questions suitable for their own students. The section on ethics is provided to provide a basis for discussion. Decisions on the production, marketing, use and disposal of chemicals are rarely simply matters of scientific judgment. Other factors with ethical implications must often be considered, for example the balance between protecting human health and protecting the natural environment in the use of pesticides such as DDT to prevent malaria.

The authors believe that it is important that the students should be given some relevant case studies to consider. If the educator knows of any good local examples these should be used. However, a brief case study of the DDT story is presented as an example which could be presented to the students to illustrate the problems that occur in real situations.

A list of further reading is given below for those who wish to take their knowledge of the subject further. A good starting point, specially designed for chemists, is the book already referred to above, “Fundamental Toxicology for Chemists” published by the Royal Society of Chemistry, Cambridge.

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FURTHER READING


Casarett and Doull's Toxicology - see Klaasen.


Merck Index - see Budavari, S.


BOOKS ON PATHOLOGY
