ILSI EUROPE WORKSHOP ON GUIDEA - Guidance for Dietary intake Exposure Assessment

Summary

29 - 30 November 2011

Geneva, Switzerland
From 29 – 30 November 2011 ILSI Europe held a two-day workshop at the Firmenich FIRSA Auditorium in Geneva, Switzerland on the subject of its draft web-based guidance for dietary intake exposure assessment (GUIDEA).

Exposure assessment is a key component of any risk-benefit analysis of the presence of chemicals in the diet. Such chemicals include nutrients, additives, flavourings, compounds migrating from packaging, chemical contaminants, pesticide residues, microbial contaminants, new functional or novel ingredients and food allergens, and a wide range of methods are employed in the assessment of their exposure. While guidance on the conduct of their exposure assessment is often available, it comes from a variety of sources and there is no single source which covers all aspects of the methods, principles and approaches to conducting and reporting dietary intake/exposure assessments on the complete range of components.

The ILSI Europe Food Intake Methodology Task Force has initiated an activity which aims at producing a practical guide which identifies best practice for conducting intake/exposure assessments across a wide range of chemicals in the diet. It is intended that the guide will be an important reference source for stakeholders, providing concise guidance on the planning, conduct, reporting and interpretation of exposure assessments, and will also be capable of development into materials for future training courses. The output of the activity, developed through the work of an expert group established by the Task Force, takes the form of a web-based utility, based on MediaWiki software, with the pseudo-acronym GUIDEA (Guidance for Dietary Intake Exposure Assessment). It is currently at an interim stage of development and the workshop on 29 – 30 November was held in order to expose it to review by a wider group of experts in the field, to test its usability and to obtain the experts’ feedback with a view to further improvement of the website before launch in a final form.

The Workshop was chaired by Dr David Tennant (Food Chemical Risk Assessment, UK) and co-chaired by Dr Ben Smith (Firmenich, CH). It consisted of two plenary sessions with presentations by invited speakers and break-out sessions in which participants were distributed amongst five working groups to discuss and test detailed aspects of the web-based utility. It was attended by more than 50 experts from industry, academia and governmental organisations.

Programme of presentations:

GUIDEA – a new resource for exposure/intake assessment

Dr Neil Buck

DSM (CH)

Keynote presentation: Emerging issues in conducting dietary exposure assessment

Dr Mike Dinovi

Food and Drug Administration (USA)

Procedures used at EFSA for the assessment of dietary exposure to chemicals

Dr Davide Arcella

European Food Safety Authority (I)

Probabilistic risk assessment: some recent initiatives in dietary exposure modelling

Dr Marc Kennedy

Food & Environment Research Agency (UK)

JECFA: International risk assessment of chemicals in food

Dr Philippe Verger

World Health Organization (CH)
Dietary intake assessments by the US Food and Drug Administration
Dr Mike Dinovi
Food and Drug Administration (USA)

European food consumption data: achievements and future challenges
Dr Davide Arcella
European Food Safety Authority (I)

Expert system food safety: developments on exposure assessment at TNO
Dr Astrid Kruizinga
TNO (NL)

Monte Carlo risk assessment
Dr Jacob van Klaveren
RIVM (NL)

Application of exposure assessments in the EU: the GOED and FACET Projects
Dr Áine Hearty
Cantox HealthSciences International (IE)

EFCOVAL: European Food Consumption Validation and EURRECA: European micronutrient recommendations aligned
Dr Jeanne de Vries
University of Wageningen (NL)

BRAFO: benefit-risk analysis of foods
Dr Alessandro Chiodini
ILSI Europe (BE)

The ASEAN Network
Dr Philippe Verger
World Health Organization (CH)

Fluid intake
Mr Laurent Le Bellego
Danone (FR)

The GUIDEA website structure and functionality
Matthew Buck
Ratware UK (UK)

ILSI GUIDEA: practical examples
Dr Astrid Kruizinga
TNO (NL)

Quantifying uncertainties
Dr Marc Kennedy
Food & Environment Research Agency (UK)

In the break-out session the working groups assessed the GUIDEA utility from the perspective of:

WG 1: Natural constituents of foods (nutrients, micro-organisms)
WG 2: Residues in food (pesticides, environmental contaminants, mycotoxins)
WG 3: Additives to food (food additives, novel food ingredients)
WG 4: Professional development (use of the website for maintaining professional awareness)
WG 5: Communication (use of the website by non-professionals as an) information source

The working groups reported the outcome of their discussions back to a final plenary session in which they were discussed.

In overview, participants noted that many other organisations were engaged in the assessment of exposure and its application to risk analysis and that harmonisation of methods and approaches between them had, to date, remained elusive. It was acknowledged that GUIDEA might provide a catalyst to facilitate interaction between
approaches and thereby lead to greater harmonisation. There was discussion of the degree of interaction to be anticipated between users and the web-based system, with emphasis being placed on the need to encourage contributions from users both at the level of inputting content and at the level contributing to the evolution of approaches to exposure assessment. It was agreed that one of the potential strengths of an interactive web-based system would be its ability to evolve and improve continuously over time. The necessity to integrate exposure assessment with toxicological evaluation in any risk analysis process was noted. It would be important that this relationship is captured on the website.

The main conclusions in relation to the structure and operation of the web-based utility can be summarised as follows:

• there is a need more clearly to set exposure assessment in the broader context of risk-benefit analysis
• there is a need for an initial, clear structure to be set out so that users can readily identify their locus within the website
• there is a need for a glossary to ensure that terminology within GUIDEA and between GUIDEA and other sources is aligned
• the website should be less text-oriented with greater use made of visuals to engage the interest of users more immediately
• there is a need for more inter-linking and cross-linking between elements of the website
• there should be a clear definition users, target groups and contributors/partners
• there is a need to provide a sustainable resource for website management to ensure its long term success
• there is a need to define the balance between retention of ownership of the website by ILSI Europe and an evolution to free-access by interested participants/contributors

The discussion and conclusions generated by the Workshop were greatly appreciated by the GUIDEA Expert Group. They will be taken into account in a further development of the website with a view to a launch of the website in its final form during the last half of 2012. Summary proceedings of the Workshop will be prepared for publication in a peer reviewed journal.

More information about the website in its present form can be found at:
[add link for the GUIDEA poster]

John Howlett
Consultant
Overall Rapporteur of the Workshop