Regional Workshop on Monitoring and Management Strategies for Benthic HABs

Contribution of FAO to the implementation of the ciguatera fish poisoning (CFP) plan of action

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Outline

• Current challenges
• Interagency meeting on CFP
• CCCF
• COFI-FT
• Follow up actions from CCCF
  • Background document
  • Call for experts
  • Call for data
  • Expert consultation
Current challenges

• Currently, Codex does not provide any guidance, risk management advice or maximum limit for CTX.

• Analytical methods for detection and quantification of CTXs are not harmonized.

• Maximum limits for Caribbean (C), Indian (I) and Pacific (P) CTXs are not established.
Inter-agency meeting on CFP

- Organized in December 2015
- To discuss ciguatera fish poisoning as an increasing food safety threat
- An action plan was agreed
The Committee presently constitutes the only global intergovernmental forum where major international fisheries and aquaculture problems and issues are examined.
The Committee started to work on CPF and requested scientific advice from FAO/WHO to allow the development of appropriate risk management options.

In particular, the CCCF requested scientific advice to:

i. full evaluation of known CTXs (toxicological assessment and exposure assessment), including geographic distribution and rate of illness; congeners; methods of detection; and

ii. based on this, guidance for the development of risk management options.
Introduction

Standards currently in use in the global market are those set by:

1. the Codex Alimentarius for food safety;
2. the International Plant Protection Convention (IPPC); and
3. the World Organization for Animal Health (OIE).

World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures, also known as the SPS Agreement
Risk assessment questions

FAO/WHO

Microbiological issues
Chemicals, Residues of Vet drugs
Pesticides

JEMRA
JECFA
JMPR

Reports of risk assessments, JECFA, JMPR evaluations

Food standards, Guidelines, Codes of practice:

1. Microbiological criteria
2. Maximum Residue Limits (MRL) for chemicals, residues of veterinary drugs, pesticides
Food safety risk analysis

Scientific advice and information analysis

Dialog with all stakeholders

Risk Assessment
FAO & WHO

Risk Communication

Management
CAC & Member States

Regulation and control
Follow-up from CCCF11

To answer the request from CCCF11 for scientific advice, FAO/WHO undertook the following preparations:

• Background document (a review of the current available data) (under development)
• Call for experts (done)
• Call for data (on-going)
• Expert consultation on CFP (November 2018)
Contents background document on CFP

1. Background
2. Occurrence of the causative organism and toxins
   2.1 Occurrence of Gambierdiscus species
   2.2 Occurrence of ciguatoxins in fish
3. Chemistry
   3.1 Ciguatoxin classification
4. Detection
   4.1 In vitro methods
   4.2 LC-MS/MS
   4.3. Bioassay
5. Toxicity, mode of action, epidemiology, clinical features
   5.1. Clinical features and toxicity
   5.2. Mode of action
   5.3 Toxicity Equivalency Factors
   5.4 Epidemiology
   5.5 Treatment
Contents background document on CFP

6. Monitoring and risk management
   6.1 Toxin/algae monitoring
   6.2 Risk management

7. Research projects
   7.1 Ciguitools
   7.2 Eurocigua
   7.3 AlertoxNet

8. Data gaps and future research needed
Call for experts on CFP

CALL FOR EXPERTS ON CIGUATERA FISH POISONING

Deadline: 1 April 2018
CALL FOR DATA ON CIGUATERA FISH POISONING

Deadline: 1 May 2018
Occurrence and chemical data

1. Data relevant to the occurrence of Gambierdiscus species, other causative organisms and the biosynthetic pathways of CTXs
2. Data relevant to CTXs analogues classification
3. Data relevant to the occurrence, and quantification of CTXs including:
   a. levels and patterns of occurrence of CTXs in fishery products;
   b. level of CTXs linked to fish species and fish age;
   c. levels of CTXs in animal feed;
4. Data on carry-over of CTXs from the coral reef to fish for human consumption or animal feed;
5. Data on effects of processing on levels of CTXs in fishery products as consumed and in feed.
6. Sampling protocols for the CTXs used by investigators or authorities; and
7. Analytical techniques used by investigators or authorities for identifying and quantifying CTX in fishery products and/or human and animal tissues.
Toxicological, epidemiological and clinical data

All data relevant to:
1. metabolism and pharmacokinetic studies;
2. short-term toxicity, long-term toxicity studies;
3. epidemiological studies;
4. special studies designed to investigate specific effects, such as the mechanism of toxicity, immune responses, or macromolecular binding;
5. toxic potency of CTXs
6. relative potency; and
7. clinical features and treatment of CFP
8. information on disease outbreaks
Dietary exposure assessment data

All data relevant to:
1. levels and patterns of human exposure from all relevant sources of CTXs;
2. seafood consumption patterns and population groups; also considering different anatomic parts considered edible and fish species; and
3. biomarkers of exposure
Risk management measures

All data relevant to prevention and control programmes:
1. toxin/algae monitoring;
2. fish species containing CTXs; and
3. risk management
Unpublished information and data

FAO and WHO recognize that some of the information and relevant data which are now required may be unpublished or of a confidential nature. With regard to unpublished information and data, this remains the property of the author for subsequent publication by the owner as original material. Unpublished confidential studies that are submitted will be safeguarded in so far as it is possible to do so without compromising the work of FAO and WHO. Specific issues relating to confidentiality should be discussed directly between the information and data owners and FAO/WHO. For these and other issues please contact FAO and WHO at the contacts provided.
Data for the expert consultation

The data will serve as inputs to the development of scientific advice, which will be provided through the expert consultation that will take place in Rome on 19-23 November 2018 and will guide the elaboration of appropriate Codex texts and advise Member States.
Call for data

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This call for data is available:
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