Ensuring Food Safety: An Important Challenge Today

Bertha Woon

Recently in July 2015, a message regarding Group B Streptococcus (GBS) in raw fish started spreading. The Ministry of Health (MOH), National Environment Agency (NEA), and Agri-Food & Veterinary Authority (AVA) acknowledged the message, and started investigating.

MOH sought help from doctors, asking them to report cases of GBS infection, to help the authorities investigate a possible link between the bacterial infection and consumption of raw fish.

After investigating, GBS bacteria was found in 2 types of fish; Song fish, also known as Asian Bighead Carp; and Toman fish, also known as Snakehead fish.

Foodstall holders were asked to temporarily stop selling raw fish dishes using fish which have been found with traces of GBS bacteria. 238 cases of GBS infections were detected during the first 6 months of 2015, compared with an average of 150 cases per year in the past 4 years.

GBS is a common bacterium found in the human gut and urinary tract of about 15-30% of adults without causing disease. However, GBS may occasionally cause infections of the skin, joints, heart and brain. The bacteria can also be found in fish, but this does not pose an issue if the fish is well cooked before consumption.

A check of the list of circulars, food alerts, forum replies, and press releases on the AVA website provides a “taste” of the global challenge of food safety.

**Circular to Supermarket Retailers (engaging local food processors to carry out re-packing of food and labelling requirements)**

**AVA ensures safety of disposable utensils**

**Voluntary recall of wine products from South Africa by Distell Limited**

**Lifting of Restriction on Imports of Poultry and Poultry Products from Hungary**

**Import of Frozen Pork from Malaysia**

**Lifting of Restriction on Import of Frozen Pork from AVA-approved Establishments in Poland**

**Outbreak of Avian Influenza (AI) in Nebraska, USA**

**Outbreak of Highly Pathogenic Avian Influenza (H5N8) in Indiana**

**Plastic packaging for food tested for food safety**

**Outbreak of Avian Influenza (AI) in North Dakota, USA**

How can doctors help? They can alert the food safety authority if they discover trends of multiple cases of food poisoning with similar characteristics. Doctors can also provide opportunistic education on food safety, when patients report related symptoms, e.g. stomach upset. They can also consider creating or supporting campaigns or advocacy efforts [e.g. writing to the press] to lobby government about improving food safety.

In the international arena, the Codex Alimentarius, setup by the Food and Agriculture Organization and World Health Organization, compiles standards, codes of practice, guidelines and recommendations relating to food safety. For example,

**Codex standards on Maximum residue limits (MRLs) for residues of pesticides or veterinary drugs in foods**

**Codex codes of practice on hygienic practice, e.g. Hazard Analysis and Critical Control Point (HACCP) food safety management system**

Some of the issues over the horizon include genetically modified food & safety. At the moment, there are no internationally-agreed recommendations on the food labelling of GM
The toman fish, or snakehead fish, is one of the two fish types flagged by MOH for having traces of GBS bacteria. Governments are therefore applying their own regulations.
After investigating (2)...

- GBS is a common bacterium found in the human gut and urinary tract of about 12-30% of adults without causing disease. However, GBS may occasionally cause infections of the skin, joints, heart and brain.
- The bacteria can also be found in fish, but this does not pose an issue if the fish is well cooked before consumption.

Food Safety in Singapore

- Lead agency
  - Agri-Food & Veterinary Authority of Singapore (under the Ministry of National Development)
- Partners
  - Ministry of Health
  - National Environment Agency (under the Ministry of the Environment & Water Resources)

Dr Swaine Chen

"If a simpler test can be developed, it will contribute to testing patients, food products, and surveillance. While we are gratified to see the reduction in cases, it is critical for us to continue our efforts to detect and investigate new cases that may need to be investigated in future.

Prof Timothy Barkham


(List of circulars, food alerts, forum replies, press releases at Agri-Food & Veterinary Authority of Singapore website [http://www.ava.gov.sg/newsroom"

How can doctors help?

- Surveillance
  - Short food safety authority (SSFA) has discovered unusual trends of multiple cases of food poisoning with similar characteristics
- Education
  - Promote food safety education on food safety; where patients report related symptoms, e.g. stomach upset
- Advocacy
  - Consider creating/negotiating new policies or advocacy efforts, e.g. writing to the当局 to bolster government about improving food safety.

"If an easier test can be developed, it will contribute to testing patients, food products and surveillance. While we are gratified to see the reduction in cases, it is critical for us to continue our efforts to detect and investigate new cases that may need to be investigated in future.

Prof Timothy Barkham"
The international arena

- Codex Alimentarius
- Setup by Food and Agriculture Organization and World Health Organization
- Complex standards, codes of practice, guidelines and recommendations
- http://www.codexalimentarius.org

Codex Alimentarius

- Examples
  - Codex standards on Maximum residue limits (MRLs) for residues of pesticides or veterinary drugs in foods
  - Codex codes of practice on hygienic practice, e.g. Hazard Analysis and Critical Control Point (HACCP) food safety management system

Issues over the horizon

- Genetically modified food & safety
  - "At the moment, there are no internationally agreed recommendations on the food labelling of GM foods. Governments are therefore applying their own regulations."  
  