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INFORMATION Bulletin

Regional Support Unit and Emergency Centre for Transboundary Animal Diseases for South Asia, FAO, Nepal

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Major diseases situation in the Sub-region

During the months of September - October 2014, no HPAI outbreaks were reported from the SAARC countries. The sub-region continued to record highly pathogenic diseases such as Anthrax (Bangladesh), Crimean Congo haemorrhagic fever (CCHF) in Pakistan, and leptospirosis in Sri Lanka during the period.

Highly Pathogenic Avian Influenza (HPAI) H5N1 updates

During the months of September - October 2014, no HPAI outbreaks were reported from the SAARC countries.

Bangladesh

Anthrax update

A total of 74 cutaneous anthrax cases were reported from Shahjadpur (09), Ullapara (20), Gangni (20), Madhupur (11) and Dhonbari (15) during September - October 2014. During the months of January - August 2014, a total of 214 cutaneous anthrax cases were reported from 7 Upzilas namely, Raiganj (13), Shahjadpur (09), Ullapara (20), Gangni (138), Araihazar (8), Madhupur (11) and Dhonbari (15).

For more info:

http://bit.ly/bul32-01

Pakistan

Crimean Congo hemorrhagic fever (CCHF) update

During week No. 36 (September - October) of 2014, thirty six (36) suspected and fourteen (14) laboratory confirmed cases of CCHF have been reported in Pakistan. At least six deaths (case fatality rate 42.9%) have found to be associated with CCHF. Although Punjab, Khyber Pakhtunkwa (KPK) and Baluchistan have reported cases of CCHF, however, Balochistan remained the most affected Province in the country with 66 cases including 15 deaths (case fatality rate 22%) as of week 42 of 2014. The active areas are those in the border between Iran and Afghanistan. About 30 reported cases of CCHF were infected in Afghanistan and moved to Pakistan for treatment. Among them 14 Afghani were reported from Baluchistan, 14 from Khyber Pakhtunkhwa, and 2 from Islamabad.

The movements of the nomads with their animals including those infested with Hyalomma ticks are thought to be responsible for transmitting the virus to both the animal and human. Joint activities such as enhanced surveillance, outbreak investigation, social mobilization and sharing of information among the stakeholders and partners are needed to be implemented .

For more info:

http://bit.ly/bul33-02 ; http://bit.ly/bul32-02

Sri Lanka

Leptospirosis update

A total of 738 cases of human leptospirosis with 264 and 474 cases in September - October 2014 respectively have been reported. Of 26 districts, a total of 17 districts in September and 21 districts in October were affected. The highest numbers of cases reported were 69 and 132 in Gampaha district during September and October respectively. Previous experience and data suggests that the disease is mainly associated with paddy farming. More information can be seen on the website of the Epidemiology Unit, Ministry of Health, Sri Lanka.

For more info:

http://bit.ly/bul32-03

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Workshops and Meetings

Training Workshop on Avian Influenza A (H7N9) Surveillance: Sample Collection and Dispatch Techniques, 20 - 21 October 2014, Paro, Bhutan and 6 - 7 November 2014, Kathmandu, Nepal

This training was organized at the in- country level with support from TCP/RAS/3407(E). The objective of workshop was 1) to sensitize and update the participants on the current situation of avian influenza A(H7N9) in the region, 2) to understand epidemiology of avian influenza A(H7N9), its diagnostic approaches and risk communication strategies 3) to impart skills and knowledge about surveillance protocols for avian influenza A(H7N9), and 4) to provide hands-on training on sample collection methods, preservation and dispatch for avian influenza A(H7N9).

Participants of the Training Workshop on AI A(H7N9) Surveillance - Sample Collection and Dispatch Techniques

In Bhutan the training-workshop was conducted from 20 – 21 October 2014 in Paro. The workshop was attended by 8 veterinary officers and 16 laboratory technicians. Similar training-workshop was held in Kathmandu which was attended by 19 field veterinary technicians and technical officers working under district Livestock Services offices of 10 districts under surveillance for avian influenza A(H7N9).

Training on ELISA and HI Techniques for Laboratory Diagnosis of Avian Influenza A(H7N9), 21 - 23 October 2014, Islamabad, Pakistan, 10 - 13 November 2014, Kathmandu, Nepal and 17 - 19 November 2014, Wangdue, Bhutan

This training was organized at the in- country level with support from TCP/RAS/3407(E) in Bhutan, Nepal and Pakistan. The objective of training was to provide hands-on training to participants in sample processing and bio-safe practices; to learn serological testing for avian influenza A(H7N9) diagnosis and to enhance the technical capabilities of staff at the national, regional and provincial laboratories of Bhutan, Nepal and Pakistan through the harmonization of laboratory diagnosis and surveillance techniques for Avian Influenza A(H7N9). As avian influenza A(H7N9) event in China raises the urgent need to enhance control efforts, increase preparedness and risk mitigation measures in the moderate and high risk countries in the region and to address knowledge gaps. The main areas requiring immediate reinforcement are epidemiologic knowledge, surveillance and diagnostic capacity, as well as response strategy to mitigate the potential incursion of Influenza A(H7N9) in the countries in this region.

The trainees were offered lectures on the current situation regarding Avian Influenza A(H7N9) protocols for collection and shipment of clinical and surveillance samples, laboratory issues related to biosafety and biosecurity, test procedures for HA, HI and ELISA with extensive hands-on practical training on the listed lab techniques, along with the proficiency testing was also performed. During the training, 19 participants from Bhutan, 11 from Nepal and 15 from Pakistan attended.

Participants of Training on ELISA and HI Techniques for Laboratory Diagnosis of Avian Influenza A(H7N9)

Scientific Report

Highly pathogenic avian influenza A subtype H5N8

Highly pathogenic avian influenza (HPAI) H5N8 viruses have been reported in Asia since 2010 and more recently in January 2014 in the Republic of Korea affecting, domestic poultry and wild birds; in April 2014 in Japan affecting domestic poultry and in October 2014 in China, in domestic poultry. Different species of wild birds have been found infected with HPAI H5N8 in those countries; most recently in mid-October the virus was detected in a Tundra swan in Japan.

On 6 November 2014, an outbreak of HPAI H5N8 was confirmed in Mecklenburg-Vorpommern region of Germany in one of five sheds at a turkey holding in the north-east of Germany. The virus was identified as similar to the one previously identified in South Korea. A second outbreak was notified on 15 November in the Netherlands. It concerned a holding with laying hens kept in-door and located north east of Rotterdam. The virus was confirmed to be HPAI H5N8. One day later, the United Kingdom notified also an outbreak of HPAI virus of the H5 subtype at an indoor duck breeding holding in the East Riding of Yorkshire. Also in this case, the virus was confirmed to be HPAI H5N8.

The entry of HPAI H5N8 into Europe and its subsequent spread within Europe are 2 separate events with possibly different transmission vectors. Following epidemiological investigations of infected poultry holdings, there is not yet a clear indication of the source of the virus. There are no known direct bird migration routes from Asia to Western Europe. It has been hypothesized that long-distance transmission of HPAI viruses could occur as a result of cross-infection between different birds in north Eurasian breeding areas, but this hypothesis needs further investigation.

The HPAI H5N8 has been detected in wild bird populations in Germany and the Netherlands. Direct contact between wild birds and farmed birds in the affected holdings was unlikely. It is more plausible that indirect introduction of HPAI H5N8 to poultry holdings via humans, vehicles, equipment, fomites, live animals and/or animal-derived products contaminated with virus (for instance in faeces) of infected birds took place. Investigations in the Netherlands suggest separate introductions into 4 holdings and one between-farm transmission.

Assessing biosecurity procedures is recommended with a focus on segregation, cleaning and disinfection, and improving where necessary.

Given the apparent low pathogenicity of HPAI H5N8 for several wild bird species, focused strategic and proportionate enhancement of active (targeted) and passive (scanning) surveillance of both living and dead wild birds in the high risk areas would improve the understanding of the risk of virus transmission to poultry.

It might also facilitate the design of targeted measures to reduce the risk of virus transmission between poultry and wild birds. Timely updated analyses on the evolving situation within the European Union are required, as well as assessment of all transmission routes that might transport HPAI viruses from Asia to Europe.

For more info: http://bit.ly/bul33-03

Upcoming event

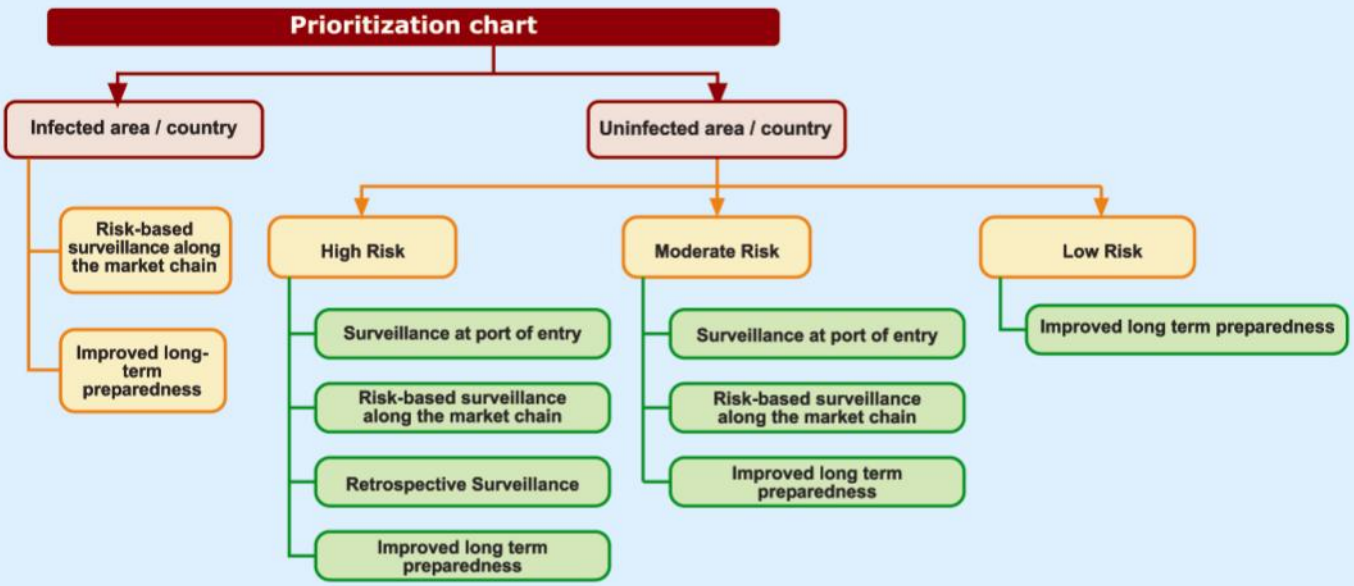
Event	Details
Closing Workshop - Emergency assistance for surveillance of influenza A (H7N9) virus in poultry and animal populations in Southeast Asia and South Asia	17-18 Dec 2014, Bangkok

SAARC

European Union

Eliminating Animal Health Risks

FAO/EMPRES guidelines for emergency risk-based surveillance for avian influenza A(H7N9)



Design process for risk-based surveillance along the market chain, based on a snowball sampling strategy

STEP 1

Select Live bird markets (LBMS): Collect biological samples and administer questionnaire.

STEP 2

Identify the catchment area of positive LBMS: collect biological samples and administer questionnaire in farms and LBMs linked to the positive LBMs.

STEP 3

Identify the secondary catchment area (of positive farms and markets): collect biological samples and questionnaires in farms and LBMs linked to the positive units. Conduct serological surveillance around positive farms.

Afghanistan Bangladesh Bhutan India Maldives Nepal Pakistan Sri Lanka

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