



Food and Agriculture
Organization of the
United Nations



World Health
Organization

FAO-OIE-WHO Global Technical Meeting on MERS-CoV

25-27 September 2017, Geneva, Switzerland

Day 1: Monday 25 September 2017 (Venue: Executive Board Room)

Time	Topic (speaker)
08:30-09:00	Registration (outside of Executive Board Room)
	Venue: Executive Board Room
09:00-10:30	Welcome & Introductions – WHO (Sylvie Briand <i>via video</i>), FAO (Ahmed Elidrissi), OIE (Ghazi Yehia)
09:30-09:50	Global Situation of MERS 2012-present, Objectives, organization and outputs of the meeting (Maria Van Kerkhove, WHO)
09:50-10:10	The extent of MERS in animals - global overview (Sophie VonDobschuetz, FAO)
10:10-10:30	MERS in Saudi Arabia: Actions taken to identify and respond to MERS in the community and in health care settings (Abdullah Assiri, KSA MOH)
10:30-11:00	Group Picture and Coffee Break
11:00-13:00	Joint Plenary Session: MERS-CoV Diagnostics (Venue: Executive Board Room) Co-Leads: Christian Drosten, Charite & Mona Mahrez, MoA Egypt
11:00-11:20	Molecular testing and point of care/rapid tests: Results from molecular diagnostics landscape exercise (Cassandra Kelly, FIND)
11:20-11:40	MERS-CoV Serologic Assays: Results from serologic assay comparison (Christian Drosten, on behalf of NIBSC)
11:40-12:00	Antibody and T cell responses and relationship to clinical disease in MERS survivors (Stanley Perlman, U of Iowa)
12:00-12:20	MERS-CoV Serology and Sequencing in understanding transmission dynamics (Marion Koopmans, Erasmus)
12:00-12:40	Review of diagnostic tests in Animals (Salama Suhail Al Muhairi, UAE)

12:40-13:00	Discussion: Laboratory capacity building and trainings needed (Discussion and plan development)	
13:00-14:00	<i>Lunch (outside of the Executive Board Room)</i>	
14:00-15:45	Parallel Sessions: Surveillance and Laboratory Capacity: Animal and Human Health Sectors	
	Parallel Session I: Surveillance in Humans (Venue: Executive Board Room) <i>Co-Leads: Mamun Malik, EMRO and Farida Al Housni, Abu Dhabi MOH</i>	Parallel Session II: Surveillance in Animals (Venue: Salle D) <i>Co-Leads: Malik Peiris, HKU and Emma Gardner, FAO</i>
	Examples of country programs + Discussion:	Viral shedding, immune response, transmission potential in animals (Christian Drosten, Charite) (15 min)
	Middle East: KSA (Abdullah Assiri 10 min); Egypt (10 min); Pakistan (10 min); Qatar (10 min);	MERS-CoV Lab Capacity in the Middle East Animal Health (CAMNET) (OIE Dr Salama Al Muahairi) (15 min)
	Europe and Americas: England (Maria Zambon PHE, 10 min), USA (Sue Gerber USCDC, 10 min)	Camel trading/movement patterns and large scale dromedary events (Bernard Faye <i>video presentation</i>) (20 min)
	Asia and South Asia: Thailand (Rome Bauthong, Thailand MOH; 10 minutes), Philippines (de los Reyes, Philippines MOH, 10 min)	Camel Supply Chains/Value chains (Ameha Sebsibe, IGAD) (15 min)
	Questions about country presentations	Camel seroprevalence studies in Ethiopia (Elias Waleign, FAO) (15 min)
		Camel seroprevalence studies in West and North Africa (Eve Miguel, CIRAD/IRD) (15 min)

15:45-16:00	<i>Coffee Break</i>	
16:00-17:00	Parallel Session I: Surveillance in Humans (continued) (Venue: Executive Board Room)	Parallel Session II: Surveillance in Animals (continued) (Venue: Salle D)

	Sampling criteria, triage and earlier identification in health care settings (Hail Alabdaly, KSA MOH, 20 min)	FAO EPT-2 Activities (Emma Gardner, FAO) (20min)
	MERS-CoV Lab Capacity by region: Human Health by region (20 min, Chris Oxenford, WHO)	Camel Surveillance activities by PREDICT (Ehab Abu-Basha, William B. Karesh and Patrick Dawson, PREDICT) (15min)
	Discussion: Integration of MERS-CoV testing in at risk countries (20 Min)	Risk of introduction to animal populations in non-endemic areas; susceptible animals, surveillance recommendations, best practices, trade measures (Discussion)
17:00-18:00	Joint Discussion with Parallel Sessions I and II – Surveillance for MERS-CoV in Humans and Animals (Venue: Executive Board Room)	
	Discussion: Integration of MERS-CoV testing in at risk countries; Risk of introduction in humans in non-endemic countries; Surveillance needs, best practices	
	Discussion: Improving MERS surveillance in humans in countries with and without the reservoir, Training Needs for coordinated Surveillance and Investigations	
18:00	<i>Drinks Reception (Winter Café)</i>	

Day 2: Tuesday, 26 September 2017 (Venue: Executive Board Room)

Time	Topic
8:30-10:30	Joint Plenary Session (Venue: Executive Board Room)
8:30-9:00	Recap from Parallel Session I (Mamun Malik, EMRO and Farida Al Housni, Abu Dhabi MOH (TBD)
9:00-9:30	Recap from Parallel Session II (Malik Peiris, HKU and Emma Gardner, FAO)
	Introduction for MERS-CoV Transmission: (Co-leads: David Hui and Ziad Memish, KSA)
9:30-9:50	Recent advances from basic science in our understanding of the determinants of MERS-CoV transmission (David Hui, Hong Kong)
9:50-10:10	An in-depth review of changes in demographic development and camel farming practices in Qatar in relation to MERS Coronavirus emergence, spread, and potential for interventions (Elmoubasher Farag, Qatar MOH)
10:10-10:30	Discussion
10:30-11:00	<i>Coffee Break</i>

11:00-13:00	<p>Parallel Session III: Human-to-human transmission (Venue: Executive Board Room)</p> <p><i>Co-Leads: Abdullah Assiri, KSA MOH and Myoung-don Oh, Seoul National University Hospital</i></p>	<p>Parallel Session IV: Zoonotic Transmission, Regulatory issues, food safety, social science (Venue: Salle D)</p> <p><i>Co-Leads: Peter Ben Embarek, WHO and Gounalan Pavade, OIE</i></p>
	Extent of Human-to-human transmission of MERS-CoV (Mamun Malik, EMRO, 15 min)	Policy and Regulatory Issues Originating from Doha/Oman Declarations (Ahmed ElIdrissi, FAO; 10min)
	Dispersion of particles during aerosolizing procedures in hospitals (David Hui, Hong Kong, 15)	Case definition of MERS-CoV in animals for disease reporting purposes to the OIE (Mehdi ElHarrak) (10min)
	Risk factors for human-to-human transmission: Infection control implications in investigating hospital outbreaks (Ziad Memish, KSA) (15 min)	Camel trade and regulations from two perspectives (Momtaz Shahein, AHRI Egypt / Nega Tewolde, FAO Ethiopia) (30min)
	Risk factors for human-to-human transmission: results from studies conducted in Korea (YaeJean Kim, Korea) (15 min)	Food Safety (Peter Ben Embarek, WHO) (30 min)
	Risk factors for human-to-human transmission: results from studies conducted in UAE (Farida Al Housni, Abu Dhabi MOH) (15 min)	The role of social science interventions in understanding human-human and zoonotic transmission (Discussion)
	Risk Factors for Human-to-human transmission in a large nosocomial outbreak in Riyadh (Hanan Balkhy, KAIMRC) (15 min)	
	Discussion: planning needs, research priorities (30 min) Led by Abdullah Assiri and Myoung-Don Oh	
13:00-14:00	<i>Lunch (outside of the Executive Board Room)</i>	
14:00-15:45	<p>Parallel Session V: Clinical Management, Therapeutics and IPC (Venue Executive Board Room)</p> <p><i>Co-Leads: Nikki Shindo, WHO and Hail Alabady, KSA MOH</i></p>	<p>Parallel Session IV: Zoonotic Transmission, Regulatory issues, food safety, social science (Venue Salle D) (continued)</p>

	Natural History Studies and Clinical Management Experience of MERS patients (20 min) (Yaseen Arabi, KAIMRC)	Determinants of zoonotic transmission: genetic differences in MERS-CoV viruses from East Africa, West Africa, North Africa and the Middle East (Malik Peiris, HKU) (15 min)
	Supportive therapy for MERS patients in the Republic of Korea (Dr Oh, ROK 20 min)	Risk factors for zoonotic transmission Talk 1: Qatar (Reina Sikkema, ERASMUS) (15 min)
	Broad-spectrum antiviral activity of GS-5734 for coronaviruses (Thomas Cihlar, Gilead; 20 min)	Talk 2: Kenya/Ethiopia (Elias Walelign, FAO) (10+10min)
	Animal Models to evaluate effective preventive and therapeutic countermeasures against MERS (Kent Tseng, UTMB 20 min)	Talk 3: UAE (Farida Al Housni, Abu Dhabi Health Authority or Aron Hall, USCDC) (15 min)
	Discussion led by Nikki Shindo and Hail Alabdaly (25 min)	Talk 4: Egypt (Lotfi Allal, FAO) (15 min)
		Panel Discussion
15:45-16:00	Coffee Break	
16:00-18:00	Parallel Session V: Clinical Management, Therapeutics and IPC (continued) (Venue Executive Board Room)	Parallel Session VI: The role of environmental contamination in MERS-CoV transmission Co-Leads: Frank Konings, WPRO and Mohammed Al-Hajri, Qatar MOH (Salle D)
	IPC of epidemic and pandemic prone ARI in health care settings, and patients suspected/confirmed with MERS (Hanan Balkhy, KAIMRC 25 min)	Environmental Contamination- results from Hong Kong Workshop (Ada Al-Qunaibet TBC, KAIMRC) (15 min)
	Infection Prevention and Control Policies and barriers to compliance (Dr Hail Alabadly, KSA MOH 25 min)	Summarizing research conducted in Korean Hospitals 2015 (YK Choi, Korea) (20 min)
	A clinical supportive approach to severe MERS-CoV infection and opportunities for trainings (Janet Diaz, 25 min)	Preliminary Results of Experimental Studies of surface and air persistence of MERS-CoV under different environmental conditions (Vincent Munster, NIH; 20 min)
	Discussion: planning needs, research priorities, trainings	Environmental studies in community settings (Mohammed El-Hajri, Qatar 15 min)

	required	
		Discussion: Identification of needs, plans for implementation of protocols addressing environmental contamination in community settings

Day 3: Wednesday, 27 September 2017 (Venue: Executive Board Room)

Time	Topic
9:00-10:30	Plenary Session: Camel and Human Vaccines (Venue Executive Board Room) Co-Leads: Vase Moorthy WHO, Albert Osterhaus, RIZ
	Update on vaccine options for dromedaries (Erasmus, Bart Haagmans; 15 min)
	Update on vaccine options for dromedaries (Naif Alharbi, KSA; 15 min)
	Challenges and opportunities for dromedary vaccination (Mehdi ElHarrak, Morocco; 15 min)
	Update on vaccine options for humans from CEPI (Georges Thiry, CEPI; 15 min)
	Recap from WHO R&D Blueprint: MERS-CoV product development (Vasee Moorthy, WHO). 15 min
	Discussion: planning needs, research priorities (15 min)
10:30-11:00	<i>Coffee Break</i>
11:00-13:00	Plenary Joint Session: Feedback from Parallel Sessions Co-Leads: Brian McCloskey, PHE & Maria Van Kerkhove, WHO
	Recap from Parallel Session III and discussion (co-leads 30 min) Co-Leads: Abdullah Assiri, KSA MOH and Myoung-don Oh, Seoul National University Hospital
	Recap from Parallel Session IV (co-leads 30 min) Co-Leads: Peter Ben Embarek, WHO and Gounalan Pavade, OIE
	Recap from Parallel Session V (co-leads 30 min) Co-Leads: Nikki Shindo, WHO and Hail Alabadly, KSA MOH
	Recap from Parallel Session VI (co-leads 30 min) Co-Leads: Frank Konings, WPRO and Mohammed Al-Hajri, Qatar MOH
13:00-14:00	Lunch
14:00-	Wrap up, conclusions and next steps

15:45	(Leads: Maria Van Kerkhove, Ahmed Eldrissi, Gounalan Pavade)
	MERS in the Republic of Korea: Lessons after the outbreak and implemented changes (Youngmee Jee, KCDC <i>via video</i>)
	MERS-CoV Research Agenda: Proposal and Discussion (Maria Van Kerkhove, WHO)
	Update to the Doha Declaration: A proposal and discussion (Ahmed Eldrissi, FAO)
	Discussion: Opportunities, building capacity, trainings needed and areas for collaboration
15:45-16:00	Coffee Break and Meeting End
16:00-18:00	<i>Side Meetings (Invitation only)</i>