SAFETY CULTURE ON A LIVESTOCK FARM AND PREVENTION OF ZOONOSES

J STARIČ, JJ HODNIK, J JEŽEK, D BUGARSKI, N JANEV HOLCER, J LEPPÄLÄ, R. RAUTIAINEN

FOCUS ON WORKERS AT THE LIVESTOCK FARMS

- Farms are getting bigger each year – intensive production
- Different working operations – different risk for zoonoses
- Farm facilities
  - Farm times not adapted for efficient work with animals
  - Improvisation is still everyday occurring
  - Low level of safety at work – including prevention of zoonoses
- Farm workers – hot easy to find
  - High turnover
  - Seasonal workers
  - Foreign workers
  - Low level of stockmanship knowledge

WORKERS’ RIGHTS

- To a safe and healthy workplace.
- To information about workplace hazards.
- To demand a safe workplace without fear of discrimination or punishment.
- To health and safety training about hazards at their workplace.

VETERINARIANS ROLE

- Between the farm manager / owner and farm personnel
- Responsibility for safe work
- Usually the person who is listened by everybody involved
- Shortage of time + conflict of interests
- Veterinarians – have knowledge about zoonotic diseases

REPORTING OF ZOONOSES

- Inconsistent – different methods or non-existing surveillance
- People don’t go to the doctor
- Diagnosis isn’t reached

AIM

- Zoonoses reporting – official reports from Central European countries
- OIE
- Zoonoses in domestic ruminants that are transmitted when handling animals and the ways they are transmitted to humans were studied
ZOONOSES IN MEBC PARTICIPATING COUNTRIES

**VIRUSES**
- FOX VIRUS INFECTIONS

**BACTERIA**
- Q FEVER
- ATYPICAL PNEUMONIA
- TUBERCULOSIS
- LEPTOSPIROSIS
- STAPHYLOCOCCAL INFECTIONS

**FUNGI AND PROTOZOA**
- MUCORMYCOSIS
- BRUCELLOSIS
- CHLAMYDIOSIS
- SALMONELLOSIS
- CAMPYLOBACTEROSIS
- COLIBACILLOSIS
- CLOSTRIDIOSIS
- ANTHRAX

**PARAPOXVIRUSES**
- PSEUDOCOWPOX
- PAPULAR STOMATITIS
- CONTAGIOUS ECHYTPHIA IN SMALL Ruminants

**RABIES**

**POX VIRUSES INFECTIONS**
- ALL 3 COMMON PATHOGENS
- TRANSMISSION WITH DIRECT CONTACT & FOMITES, ESPECIALLY ABRASED SKIN

**Q FEVER**
- USUALLY ASYMPTOMATIC IN CATTLE & SMALL RuminANTS
- SOMETIMES ABORTION (LATE) BUT INFECTED ANIMALS SHED LARGE NUMBER OF BACTERIA
- CALVING (PLACENTA, FETAL FLUIDS, FETUS)
- MILK
- URINE
- FECES
- TRANSMISSION: INHALATION, INGESTION, DIRECT CONTACT, VECTORS – Ticks (Very Rarely)
- HUMAN DISEASE
  - Asymptomatic – Severe life-threatening: Flu-like, Pneumonia, Liver Disease, Heart Complications, Bone Inflammation & Abortion

**CRYPTOSPORIDIOSIS**
- VERY COMMON PATHOGEN IN DAIRY FARMS – UP TO 50% PREVALENCE IN CALVES
- CALVES – SCOURS: SHED IN THE FECES
- TRANSMISSION: INGESTION (INCLUDING FOMITES, DIRECT CONTACT), VERY RARELY INHALATION
- PEOPLE: PROFUSE, WATERY DIARRHEA WITH CRAMPING AND ABDOMINAL PAIN; SELF-LIMITING USUALLY – BUT HOSPITALISATIONS NOT UNCOMMON
- SPECIALLY IMMUNOSUPPRESSED PERSONS

**OUTBREAK IN STUDENTS AND HIGH SCHOOL PUPILES in Slovenia (Faculty sheep farm), lambing season 2007**
- 93 persons vaccinated Q fever
- 25 veterinary students interviewed – 5 did not get it

**OUTBREAK IN NETHERLANDS, 2007 – 2010**
- Goat farms
- More than 3000 contracted Q fever
- Stamping out: 50000 goats culled

**INTERVENTIONS FOR ZOONOSES PREVENTION – AWARENESS, EDUCATION & MANAGEMENT**
- THE DISEASE RISK CANNOT BE ELIMINATED, BUT CAN BE MANAGED
- DISCUSSION WITH FARM WORKERS – HOW DO THEY PERCEIVE THE THREAT – THEIR EXPERIENCES AND PRACTICES
- BASIC EDUCATION ON INFECTIOUS DISEASES

**INFECTION DISEASE CHARACTERISTICS**
- Asymptomatic / Subclinical
- Clinical disease

\[
\text{Incubation period} \quad , \quad \text{Latent infection} \quad , \quad \text{Pathogen excretion}
\]
INFECTIOUS DISEASES

• BASIC PRINCIPLES
• HOW CAN WE MANAGE RISKS

EDUCATION ON PPE

• PPE

IMPORTANCE OF HYGENE

FARM MANAGERS – AVAILABLE FACILITIES
• FOR PERSONNEL: CHANGING ROOMS, BATHROOMS, ROOM FOR LUNCH BREAK …
• FOR ANIMAL HOUSING FACILITIES

BIOSECURITY ON A FARM
• GOOD HEALTH STATUS OF ANIMALS

CONCLUSION

IT IS VET’S JOB TO PROMOTE ZOONOSES PREVENTION

FARM LEVEL

WORKER LEVEL

BE A ROLE MODEL FOR THE BEST PRACTICE OF ZOONOSES PREVENTION

Rise safety culture on farms

HTTPS://WWW.SACURIMA.EU/

https://www.cost.eu/

THANK YOU FOR YOUR ATTENTION.