

AMR (Anti-bacterials)

Responsible use of veterinary
Anti-Microbial Agents

Joe Collins December 2014

Working Group of 16 from 6 membership groups

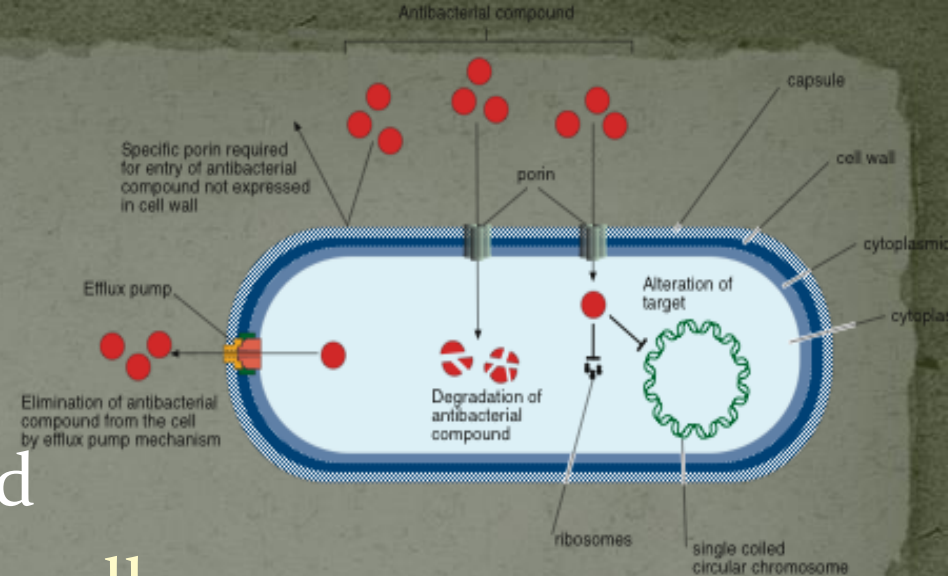
Diverse experience & expertise

- Food Animal
 - 7, incl. out and in-coming Presidents and FVE rep.
- Equine
 - 2, President and Chair of ARC.
- Companion Animal
 - 2, incl. FECAVA rep.
- Local Authority Group
 - 1, expertise in Veterinary Public Health
- State Sector Group
 - 1, expertise in Animal Health
- Education, Research & Industry
 - 3, incl. scientific & pharma expertise



Key timelines

- Convened **February 2013**
- Considered and consulted
 - Nationally & Internationally
 - Industry Producers - Pharma
 - Prescribers & supply chain
 - End Users – animal keepers
 - Scientists
 - Regulators – DAFM, HPRA, FSAI & VCI
- Published policy **November 2014** launch

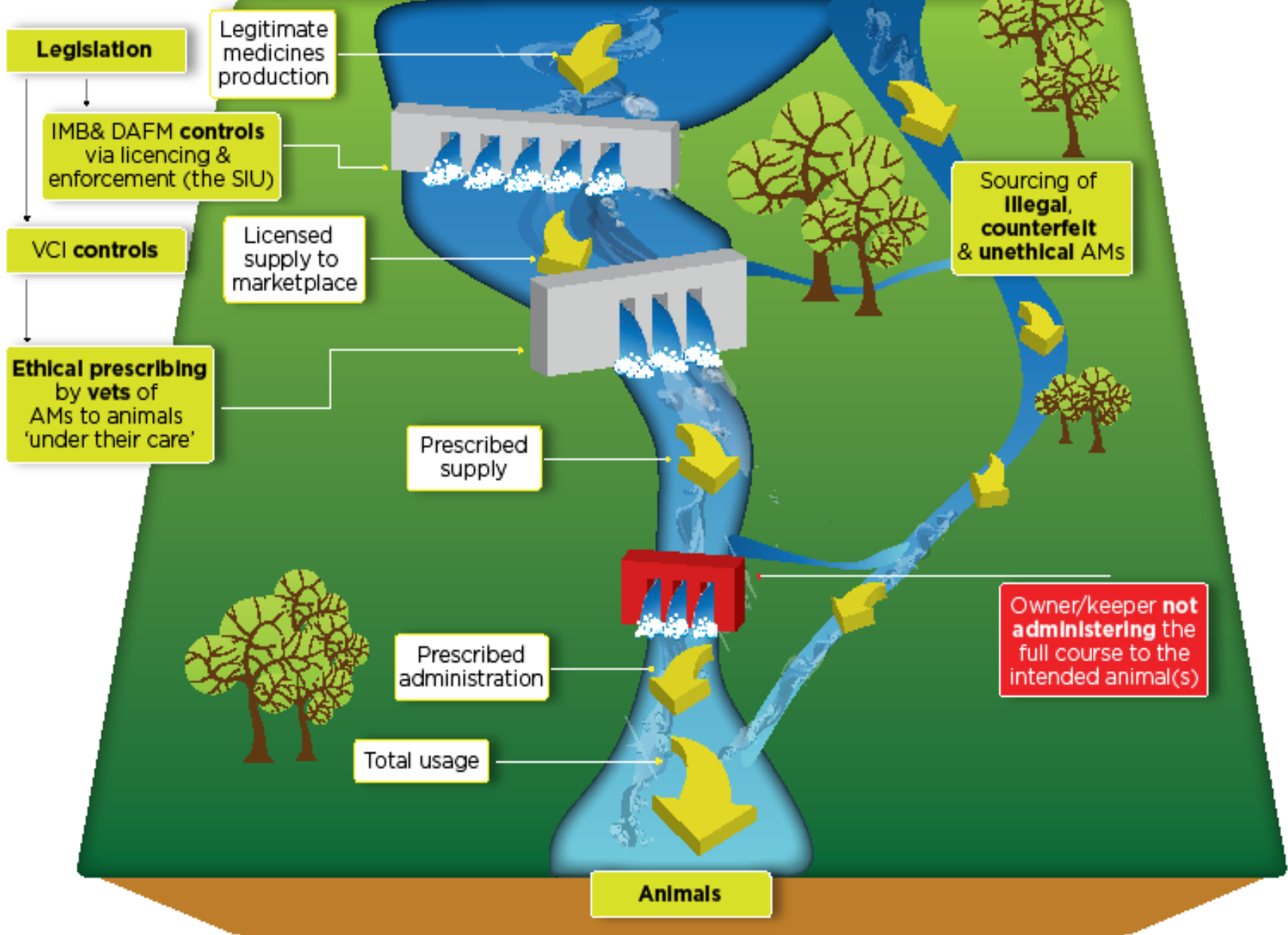


Custodians

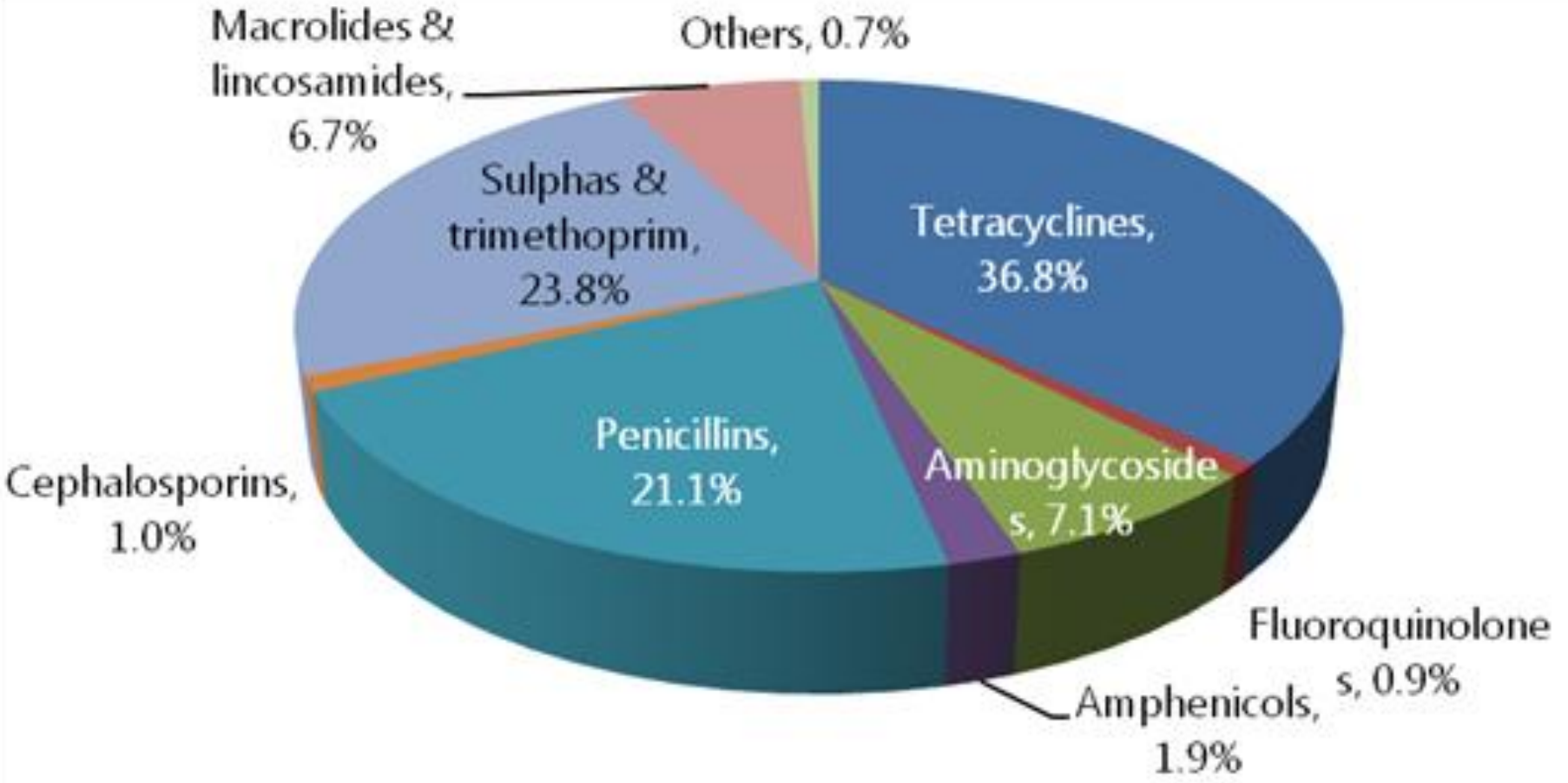


- **Animal Health** incl. infectious disease
- **Animal Welfare** incl. animal health
- **Public Health** - shared biosphere & environment - **Reservoirs**
- Preserve availability & efficacy – **Therapeutic use**
- **Manage** supply & access
- Lead **role supported** now and into the future...

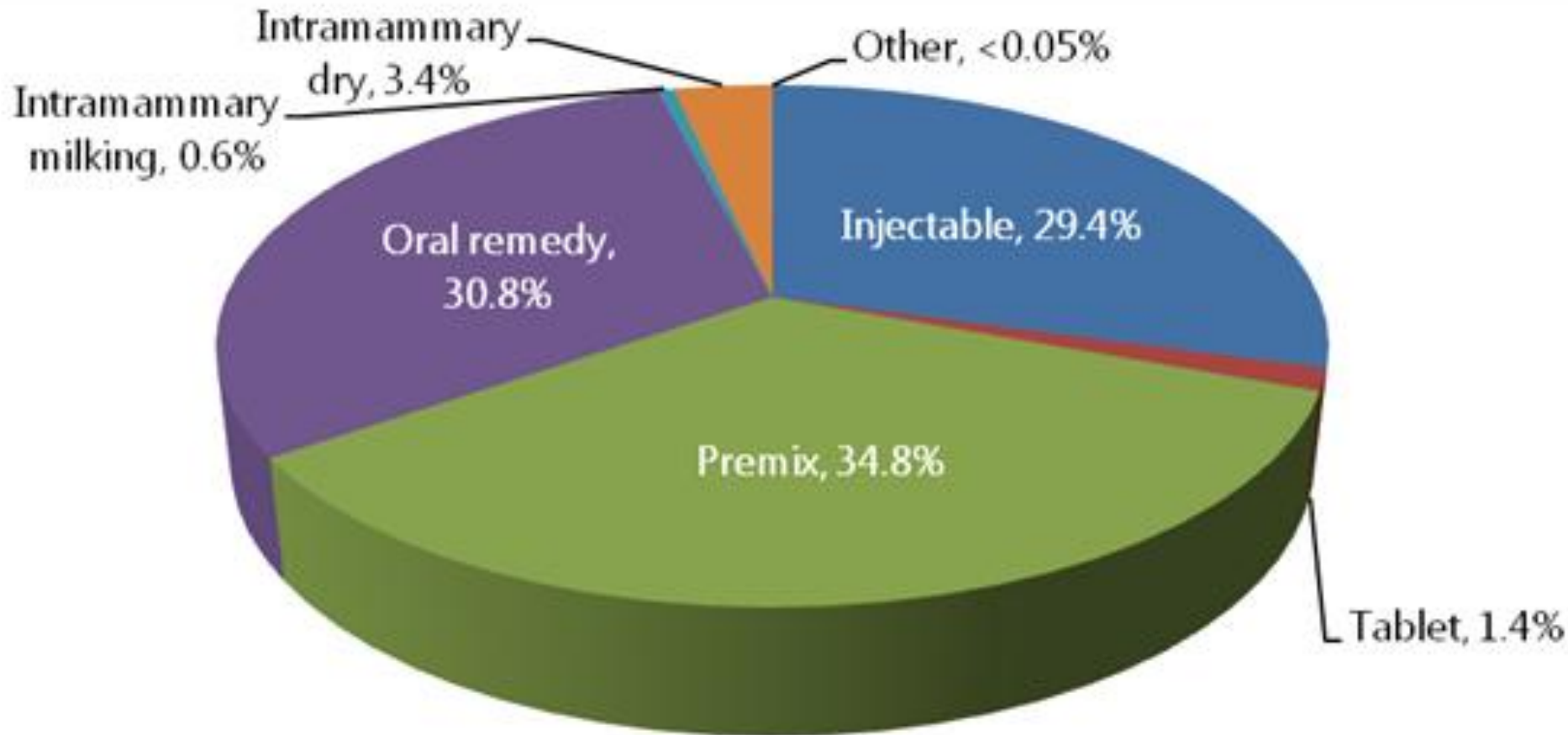
Antimicrobial Veterinary Medicines



HPRA data for 2013 – reported AM supply



HPRA data for 2013 – reported AM supply



Statistics on AM use as relating to AMR

(Apples vs. Pears)

- 1kg Tetracycline vs. Macrolide!
- 1kg use in farmed sea fish vs. 1kg in domestic dog!
- 1kg used orally vs. 1kg intravenously!

- Published only what's **declared, as supplied**, by whom?
- ? Information on **species use** – PSURs? Cascade?
- ? Correlated with changing **animal population(s)**
- ? Cross-referenced with A R Record or QAS or **Use**
- ? Correlated with **AMR incidence**
- ESVAC – with/without **oral ZnO**?; -49 vs. +7%!

- Can make for **easy (false) targets**

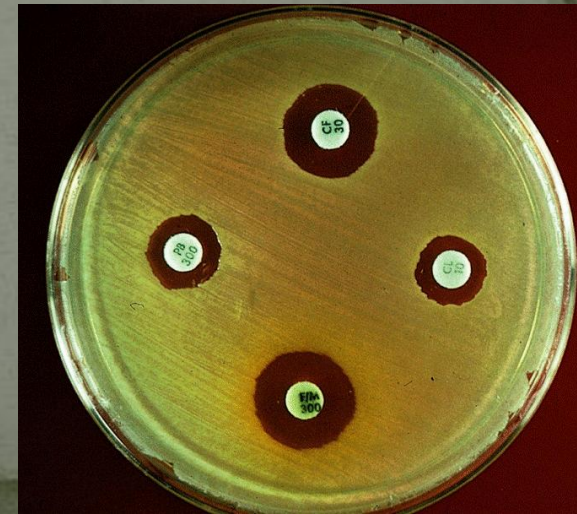
Drivers Solutions

- Division
- Shared biosphere - **One Health**
 - Coordination of human, animal & environmental elements
 - Food and/or Companion animals
 - Knowledge & Tech transfer
 - Investment in ...
 - Incentives to ...
- Global aspects
 - Medical tourism – ‘consumer choice’
 - Food miles
 - Animal travel



AMs vs. Prevention & sound management

- Quarantine & Isolation NOT introduction & spread
- Biosecurity & Hygiene NOT fire-brigade service
- Testing & Targeted AM therapy NOT mass medication
- Veterinary-led Diagnosis, H. H. M. & Ethical Prescr.
- Vaccination
 - as part of Disease Control Programmes NOT *ad hoc*



Knowledge deficit

Ignorance – **Education**

Multi-layered approach

Appropriate **Messages**

Appropriate **Messengers**

Knowing Indifference – **Enforcement**





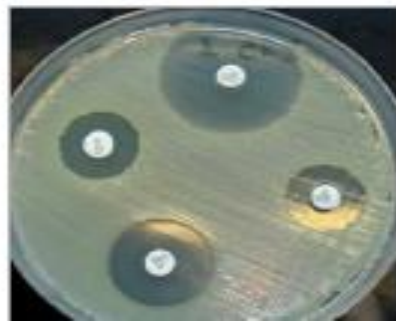
Veterinarians care for animals and people

"How to use antimicrobials responsibly: advice for veterinarians"

► **Never prescribe antimicrobials without doing an examination and diagnosis**

Every time you use antimicrobials, the risk that the organism that cause disease will develop resistance to them increases. To make sure they stay effective now and in the future, you must strictly control their use. You should only prescribe the correct dosage of antimicrobials following an examination and clinical diagnosis. You should also do sensitivity testing wherever possible. Always evaluate how well the treatment has worked afterwards.

► **Work with your clients to minimize and stop the need for antimicrobials**



A farmer can reduce animal disease and so the need to use antimicrobials altogether by drawing up an effective health plan. You should work with farmers to do this. Plans should outline how the farmer will keep animals healthy and provide effective bio-security. Prevention is essential for all animals, including companion animals and horses.

► **Pay special attention to new and critically important antimicrobials**

Antimicrobials such as fluoroquinolones and third and fourth generation cephalosporins are classed as "Critically Important Antimicrobials" (CIAs). You should only prescribe these after sensitivity testing, as a very last resort and only exceptionally off label. Always administer CIAs yourself and avoid administering them to groups or flocks of animals except in very specific situations.

► **Avoid off label use whenever possible**

Using antimicrobials off label can lead to risks and side effects for animals. That's why it should be avoided wherever possible, and always supervised by a veterinarian.

► **Be prepared to report your prescription data to the national Competent Authorities**

Authorities need to track prescription data to effectively evaluate antimicrobial use and resistance development. When asked, be prepared to report your prescription data.

FECAVA Key Recommendations for Hygiene and Infection Control in Veterinary Practice



PREVENT INFECTION

Effective implementation of hygienic measures is essential to prevent and contain the transmission of nosocomial infections to animals and humans both within veterinary settings and in the community.

CLEAN & DISINFECT HANDS

The most important activity in the control of nosocomial infections in practice.

WASH HANDS

- At the start & end of the working day.
- After visiting the toilet.
- Before & after eating or smoking.
- When visibly soiled.
- After handling animal fluids & excretions.
- Before aseptic or invasive procedures in combination with disinfection.

DISINFECT HANDS

(use alcohol-based hand sanitizers 70-90%)

- That are dry & clean.
- Before & after handling each patient.
- Before & after gloving.
- Before touching equipment, door handles & keyboards.

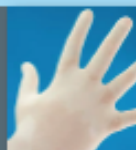
No jewelry (rings, bracelets, wristwatches, nail polish or fake nails should be worn. Nails should be kept short and clean.



USE GLOVES

- When handling diseased or carrier animals of known or suspected contagious disease, including parasitic infestations.
- When handling animals with known or suspected antimicrobial resistant infections.
- When handling all wounds.
- When contact with blood, body fluids, secretions, excretions and mucous membranes is possible.
- During surgery or when asepsis is required (sterile gloves).
- Change gloves between each individual patient & when visibly contaminated.
- Change gloves when moving from dirty to clean procedures on the same patient.
- Change gloves before touching equipment, door handles & keyboards.

Wearing gloves is not a substitute for hand hygiene!



TRAIN STAFF

Train & encourage all staff to understand & comply with good hygiene practices. Correct hygiene is not difficult if everyone is aware of its importance.

- Develop written hygiene protocols (display prominently) & appoint a member of staff with responsibility for promoting & enforcing hygiene practices.
- Establish thorough in-house training of staff & encourage attendance at continuing education courses on hygiene.



MANAGE WASTE

Divide clinical waste according to risks to animal and human health. Always use a United Nations approved waste container, carrier or treatment facility.

- Sharps – rigid container, no free liquids.
- Infectious waste (non-risk waste) – e.g. clean recyclables. Follow local legislation for removal.
- Infectious waste - bags (yellow) for soft contaminated items, gloves, gowns, bandages, swabs & tissues.
- Hazardous (cytotoxic) – (purple) lidded rigid container.
- Animal odavfers & animal by-products – place in plastic bags to avoid leakage of liquid. Store in a cold room or freezer.



CLEAN & DISINFECT PREMISES

Use approved cleaning products & disinfectants for veterinary premises & follow label instructions. Use gloves. For equipment, follow the recommendations from the manufacturers.

SURFACES & EQUIPMENT

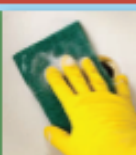
- Clean & disinfect before & after each patient & when visibly soiled or contaminated.
- Clean & disinfect door handles, keyboards, light switches & telephones on a daily / regular basis.

COMMON AREAS (ENTRANCES, RECEPTION, WAITING ROOMS & CORRIDORS)

- Clean & disinfect daily & when visibly soiled or contaminated.

WARDS, ISOLATION & INTENSIVE CARE UNITS

- Clean & disinfect before & after each patient & when visibly soiled or contaminated.



WEAR PROTECTIVE CLOTHING

To ensure that hands & forearms can be kept clean short-sleeved lab coats or scrubs should be worn at all times when handling patients. Protective clothing should not be worn outside the working environment.

ADDITIONAL PROTECTIVE CLOTHING

Masks, hair caps, sterile gowns & gloves should be used for surgical & invasive procedures.

Plastic aprons, gloves & masks are required when handling:

- Patients with known or suspected contagious disease.
- Potentially contaminated fluids & secretions.

Change the additional protective clothing:

- Between patients.
- When moving between wards, isolation & intensive care units.



EDUCATE PET OWNERS

- To ensure good hygiene practices during clinical visits & following contact with their animal in their homes.
- To support veterinary efforts in improving hygiene & responsible use of antimicrobials with good adherence to prescribed therapies.
- To convey better understanding of the public health implications of zoonotic & antimicrobial resistant infections in pets.



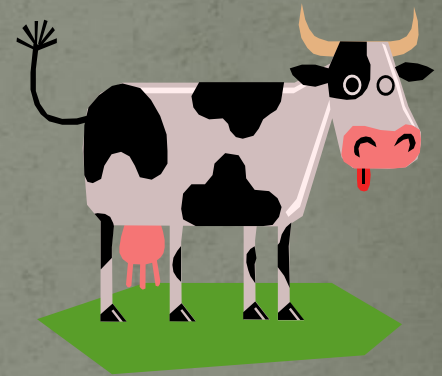
LAUNDER CLOTHING & BEDDING

- Scrubs & lab coats – daily & when visibly soiled or contaminated.
- Bedding & animal blankets – between each patient & when visibly soiled or contaminated.
- Remove any gross visible soiling contamination prior to washing (use gloves).
- Wash at 60°C & dry at high temperature to eliminate infectious organisms.
- Maintain clear separation between dirty & clean areas in laundry room to avoid cross-contamination.



(Too) Ready availability of AMs

- **Commercial pressures & Competing interests**
 - Cheap medicines as 'cure-all'
 - 'Strongest antibiotic first'
 - Cheap food as well as Q-food
- **Weak legislation – ARR 2007**
 - Schedule 8 – re-attach the udder!
 - 'Under my care' – real and NOT nominal
 - Legal classification for CI AMs – VPO?
- **Internet, Illicit & Informal sourcing or sharing**
- **Poorly targeted enforcement**
 - Intelligence driven
 - Fair, risk based and proportionate



Way Forward

- Revision of EU Medicines Regulation
- Experts must be (seen as)
 - Part of the **Solution**, NOT viewed as 'the Problem'
- Professional persons
 - Possess necessary expertise
 - Advocate **Sustainable** Animal Health
 - Protective of Animal Welfare
 - Safeguard Public Health
 - Regulated in these functions



