Ian Rudd
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Pharma Waste – why are we interested?

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We don’t have any of these in the Highlands
But we do have this.
Community Pharmacy
- 30L waste bins – 96 uplifted
- 60L waste bins – 918 uplifted

Dispensing GPs accept and dispose of pharmaceutical waste in the same way as community pharmacy.

Waste leaves Highland for incineration and landfill elsewhere in Scotland.
That leaves most of the remaining pharmaceutical waste entering our waterways
By providing more information to our patients and public on the impact of pharmaceuticals in the environment can we

Protect our environment and economy?

Protect our health?

Protect our health services?
Sharon Pfleger
Consultant
Paddling upstream to prevent pharma harm

Sharon Pfleger
Consultant in Pharmaceutical Public Health, NHS Highland

National Clinical Lead, Area Drug and Therapeutics Committee (ADTC) Collaborative, Healthcare Improvement Scotland
Pharmaceutical Public Health approach today

• Global perspective on circular economy
• Why do medicines matter?
• What can we do?
• What are we doing in Highland/ Scotland?
• What next?
GLOBAL USE OF NATURAL RESOURCES IN CRISIS OR NOT?

World Circular Economy Forum
Helsinki, June, 5th 2017
JANEZ POTOČNIK
Co-chair UNEP International Resource Panel (IRP)
Partner SYSTEMIQ
A taste of the 21\textsuperscript{st} Century environment

- Increasing evidence of the \textit{climate change} threat
- 60\% of \textit{ecosystems} already degraded or used unsustainably
- 33\% of \textit{soil} is moderately to highly degraded due to erosion, nutrient depletion, acidification, salinization, compaction and chemical pollution
GLOBAL USE OF NATURAL RESOURCES
IN CRISIS OR NOT?

• For the first time in a human history we face emergence of a single, tightly coupled human social-ecological system of planetary scope.

• Environmental consequences caused by excessive and irresponsible use of resources, in the future more responsible use of resources will be central.

• It is about system change which needs leadership and improved global governance.

• Transition to a new economic model integrating all pillars of sustainability should be in the centre of our attention.

• Circular Economy is an excellent concept to operationalise it in practice.
• We should refocus our efforts from addressing the consequences (migration, security …) to the reasons leading to them (economic, social, environmental … imbalances).
Why do medicines matter?

• More than 600 pharmaceuticals and their metabolites have been found in the environment worldwide.
• They enter the environment (through water, soil, sludge, and organisms) at all stages of their life cycle and can end up in drinking water, and accumulate in fish, vegetables, and livestock.
Use of medicines is increasing

• Growing population
• More older people
• Technological advances
• Pill for every ill culture
• Waste also increasing
How do medicines get into the environment?

• **Production processes** in pharmaceutical industry

• **Consumption / use of medicines**

• Between 30-90% of an oral dose can be excreted as an active substance in urine

• **Improper disposal**

• Each year in the UK alone, an estimated £300m worth of dispensed medicines go unused and are ultimately discarded- many flushed down toilets
Some medicines are worse than others because of their potential to affect people and wildlife

- Antibiotics
- Antidepressants
- Oral contraceptives
- Hormone replacement
- Painkillers
- Anti-inflammatories
Public health approach

Prevention is better than cure
What can we do?

• International agreement to minimise pharmaceutical pollution of our environment
• Cleaner production by pharmaceutical industry
• Raise awareness amongst healthcare professionals about the impact of pharmaceuticals in the environment and what they choose to prescribe
• Help people to understand the impact of pharmaceuticals in the environment and how to safely dispose of unused medicine
Source control

Reducing the quantity of pharmaceuticals that enter sewage systems by:

- Educating people about the possible environmental effects of what they stock in their medicine cabinet
- Encouraging people to return unused drugs to a pharmacy for proper disposal.
- Advise not to flush medicines down the toilet
What are we doing in NHS Highland?

- Area Drug and Therapeutics Committee (ADTC)
- Joint formulary for prescribing
- Guidelines linked to formulary
- Antimicrobial management team
- Disposal of unwanted medicines
- Public messages
Realistic medicines
REALISTIC MEDICINE
CAN WE:

CHANGE OUR STYLE TO SHARED DECISION-MAKING?

BUILD A PERSONALISED APPROACH TO CARE?

REDUCE HARM AND WASTE?

REDUCE UNNECESSARY VARIATION IN PRACTICE AND OUTCOMES?

MANAGE RISK BETTER?

BECOME IMPROVERS AND INNOVATORS?
Patients’ preferences matter.
The Kings Fund.

Doctors generally chose less treatment for themselves than they suggest for patients.
Patients’ preferences matter
The Kings Fund

Patients who are fully informed choose less treatment and have less regret
Medicines Booklet

- Launched June 2016 and revised 2017
- Available electronically and as a video
- Patient journey starting at consultation
- Explains how healthcare professionals decide whether to prescribe a medicine and which to prescribe
- Potential to underpin conversations between patients and healthcare professionals
- Educate the public on medicines risks and benefits
- Fulfils NHSScotland quality ambitions
- Engage patients in shared decision-making

- Higher quality care and better outcomes
- Reduced waste and harm, improved safety

Stop Antibiotic Resistance

Bacteria are becoming resistant to antibiotics. Keep antibiotics working for serious infections.

The best way to treat common colds, coughs or sore throats is plenty of fluids, rest and painkillers if needed, not antibiotics. For more information, or if you are worried, talk to your pharmacist or doctor.

Find out how you can help at Antibioticguardian.com
The commitment – Single National Formulary by 2019

- All medicines
- Tackle health inequalities, (‘postcode prescribing’) 
- Increased safety through continuity of care for cross-board patients
- Value-based care
- Streamlined process from SMC to formulary

Effective Prescribing & Therapeutics Branch

Creating Conditions

COMMUNICATE

CONNECT

COLLABORATE

CULTURE

THE VISION

By 2025, everyone who provides healthcare in Scotland will demonstrate their professionalism through the approaches, behaviours and attitudes of realistic medicine.
Will this be easy?

Albert Einstein when asked why it is that mankind has stretched so far as to discover the structure of the atom, but we have not been able to devise the political means to keep the atom from destroying us he replied:

“That is simple, my friend. It is because politics is more difficult than physics”