

# CONTROL ACTIVITIES – PRACTICAL CLASS

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# Inspection in the pharmacy

- Why?
- Who?
- How often?
- What?

# What is the purpose?

- To ensure that the pharmacy comply with all legal requirements, regulatory standards of each country

# Inspections

- Depends on the allowed product range
- National institutes

# Inspections

- Each country – legislation: instruction which institute is responsible for inspection
- Czech rep. – SUKL
- UK – The General Pharmaceutical Council Inspectorate
- USA – Federal, state Institution...

# Inspection – How often?

- Czech rep. – usually once per 2 years
- UK – once per 5 years
- if the institute believes more visits are necessary – more frequently (high risk – due to the result of previous inspections)

# Inspection – what to expect?

- Inspectors are not obligated to notify their visit
- But in majority of cases – they send a notification
  
- Routine control   X   Targeted

# Inspection – what to expect?

| Medicine stock, containers and storage   |  |
|--|--|
| Are medicines stored appropriately?<br>(i.e. in original boxes, fully labelled, no loose blisters, mixed batches and in an organised fashion). |  |
| Are unlicensed medicines in stock?   |  |
| Are medicines stored in appropriate conditions?<br>(e.g. temperature, humidity etc.).  |  |
| Are there adequate date checking procedures in operation?  |  |
| Are dispensing containers appropriately stored?  |  |



| Pharmacy record  |  |
|--|--|
| Is there evidence that the pharmacy record is accurate and entries are made contemporaneously?   |  |
| Is the pharmacy record maintained for at least 5 years?  |  |
| Absence  |  |
| Is the responsible pharmacist ever absent from the registered pharmacy?  |  |
| When absent does the responsible pharmacist remain contactable or arrange for another pharmacist to be contactable and be available to provide advice? |  |

# Inspection – results

- Copy of the check list
- Problems?
- Could start disciplinary proceeding
- (suspension of activities, a proposal to impose a fine)

# Inspection – results: examples in CR

- Shelf time
- Room temperatures
- No pharmacists in the pharmacy
- Batch mix
- Documentation

# Control activities in the pharmacy - Reporting

- Medication errors
- Adverse drug reaction, medical devices
- Quality product problems
- Report even if you don't have all information

# Medication errors - reporting

- Who makes, discovers the medication errors
- The only acceptable level of medication errors is zero.

# Medication errors

- Similar product appearance
- Similar product packaging
- Sound-alike names

# Medication errors

- omission error
- wrong dose error
- extra dose error
- wrong dose form error
- wrong time error

# Medication errors

Categories:

- human failure
- technical failure
- organizational failure



# Human failure

- occurs at an individual level pulling a medication bottle from the shelf based on memory, without cross-referencing the bottle label with the medication order/prescription
- errors made by the patient such as non-compliance to prescribed drug therapy

# Human failure

- assumption error
- selection error
- capture error

# Technical failure

- Technical failure is a failure resulting from incorrect equipment
- malfunction of equipment
- failure of automated equipment

# Organizational failure

- failure because of organizational rules or procedures

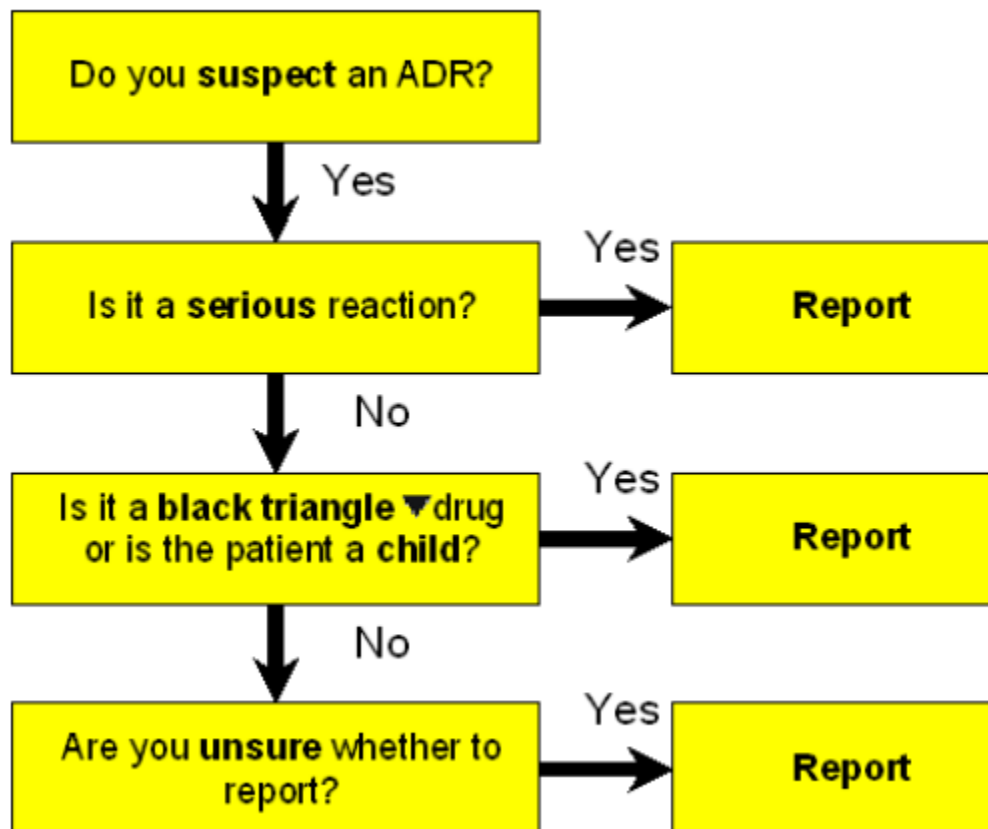
# Pharmacovigilance - reporting

- Pharmacovigilance uses information from :
- Spontaneous reporting of adverse reactions from healthcare professionals,...
  
- (compare with information from:
- Clinical trials and epidemiological studies
- Published global medical literature
- Pharmaceutical companies
- Healthcare and population statistics
- Information on the consumption of medicinal products)

# Adverse drug reaction

- Report even if you are not certain the product caused the reaction

Reporting reminder



# National competent authorities

- **Human:**

- [http://www.ema.europa.eu/ema/index.jsp?curl=pages/medicines/general/general\\_content\\_000155.jsp&mid=WC0b01ac0580036d63](http://www.ema.europa.eu/ema/index.jsp?curl=pages/medicines/general/general_content_000155.jsp&mid=WC0b01ac0580036d63)

- **Veterinary:**

- [http://www.ema.europa.eu/ema/index.jsp?curl=pages/medicines/general/general\\_content\\_000167.jsp&mid=WC0b01ac0580036d65](http://www.ema.europa.eu/ema/index.jsp?curl=pages/medicines/general/general_content_000167.jsp&mid=WC0b01ac0580036d65)



# National competent authorities (human)

- Czech Republic: State Institute for Drug Control



- United Kingdom: Medicines and Healthcare products Regulatory Agency



- Greece: National Organization for Medicines



# National competent authorities (veterinary)

- Czech Republic: Institute for State Control of Veterinary Biologicals and Medicaments

 ÚSTAV PRO STÁTNÍ KONTROLU VETERINÁRNÍCH BIOPREPARÁTŮ A LÉČIV

- United Kingdom: VMD – Veterinary Medicines Directorate



# National competent authorities (veterinary)

- Greece: [National Organization for Medicines](#)

# Yellow Card Scheme update

## How to complete a Yellow Card

You can complete a Yellow Card to tell us about a suspected adverse drug reaction to any medicine. Yellow Cards can be found in the back of the British National Formulary. Alternatively it is easier to report online at [www.yellowcard.gov.uk](http://www.yellowcard.gov.uk).

This is an example of a Yellow Card showing the minimum information which must be completed. This is all the information you need to make a report, although additional detail helps us assess the case.

1. At least one piece of patient information is required, and can be any of: **age; sex; weight; initials; height; or a local identification number**

2. The name of one or more suspect drug(s) thought to have caused the adverse drug reaction is required

3. Describe the suspected adverse drug reaction

**Yellowcard\***  
COMMISSION ON HUMAN MEDICINES

In Confidence

**MHRA**

**SUSPECTED ADVERSE DRUG REACTIONS**

If you suspect that an adverse reaction may be related to a drug, or a combination of drugs, you should complete this Yellow Card or complete a report on the website at [www.yellowcard.gov.uk](http://www.yellowcard.gov.uk). For *intensively monitored* cases (identified by ▼) report all suspected reactions (including minor adverse reactions in children (under 18 years). You do not have to be reporting just because some details are not known. See BNFC (page 21) or the MHRA website ([www.yellowcard.gov.uk](http://www.yellowcard.gov.uk)) for additional advice.

|  |  |  |                                     |
|--|--|--|-------------------------------------|
| <b>PATIENT DETAILS</b>   | Patient Initials: <b>N B</b>   | Sex: <b>M</b> <input type="radio"/> <b>F</b> <input type="radio"/> | Weight (if known (kg): _____        |
| Age (at time of reaction): _____   | Identification (Your Practice / Hospital Ref)*: _____                                |  |                                     |
| <b>SUSPECTED DRUG(S)</b>   | Route  | Dosage   | Date started                        |
| Give brand name of drug and batch number if known  |  |  | Date stopped                        |
| <b>COMBIVIR</b>  | <b>PO</b>  |  |                                     |
| <b>SIMVASTATIN</b>   | <b>PO</b>  |  |                                     |
| <b>SUSPECTED REACTION(S)</b>   |  |  | <b>Outcome</b>                      |
| Please describe the reaction(s) and any treatment given: <b>Blistering of lips and mouth</b>               |  |  | Recovered <input type="checkbox"/>  |
| Date reaction(s) started: _____ Date reaction(s) stopped: _____  |  |  | Recovering <input type="checkbox"/> |
| Do you consider the reaction to be serious? Yes / No   |  |  | Continuing <input type="checkbox"/> |
| If <i>yes</i> , please indicate why the reaction is considered to be serious (please tick all that apply): |  |  | Other <input type="checkbox"/>      |
| Patient died due to reaction <input type="checkbox"/>  | Involved or prolonged inpatient hospitalisation <input type="checkbox"/>             |  |                                     |
| Life threatening <input type="checkbox"/>  | Involved persistent or significant disability or incapacity <input type="checkbox"/> |  |                                     |
| Concomitant abnormality <input type="checkbox"/>   | Medically significant, please give details: _____                                    |  |                                     |

\* This is to enable you to identify the patient in any future correspondence concerning this report

Please attach additional pages if necessary

Please list other drugs taken in the last 3 months prior to the reaction (including self-medication & herbal remedies)

Was the patient on any other medication? Yes / No If yes, please give the following information if known:

| Drug (Brand, if known) | Route | Dosage | Date started | Date stopped | Prescribed for |
|------------------------|-------|--------|--------------|--------------|----------------|
| _____                  | _____ | _____  | _____        | _____        | _____          |
| _____                  | _____ | _____  | _____        | _____        | _____          |

Additional relevant information e.g. medical history, test results, known allergies, rechallenge (if performed), suspected drug interactions. For congenital abnormalities please state all other drugs taken during pregnancy and the date of the last menstrual period.

**REPORTER DETAILS**

Name and Professional Address: A. N. Other  
Wharfedale HIV Clinic  
St Martins Hospital  
Post code: S12 0DB Tel No: 0207 12345678  
Speciality: GUM/HIV nurse  
Signature: [Signature] Date: \_\_\_\_\_

**CLINICIAN (if not the reporter)**

Name and Professional Address: \_\_\_\_\_  
\_\_\_\_\_  
Post code: \_\_\_\_\_  
Tel No: \_\_\_\_\_ Speciality: \_\_\_\_\_

If you would like information about other adverse reactions associated with the suspected drug, please tick this box

If you report from an area served by a Yellow Card Centre (YCC), MHRA may ask the Centre to communicate with you, on its behalf, about your report. See BNFC (page 21) for further details on YCCs. If you want only MHRA to contact you, please tick this box.

Send to Medicines and Healthcare products Regulatory Agency, CHM FREEPOST, LONDON SW8 5NR

4.

The contact details of the reporter must be provided. These are held in strict confidence, and are only used to contact the reporter when additional information is required. Reporter details are not provided to any third party

**SUSPECTED ADVERSE DRUG REACTIONS**

If you suspect that an adverse reaction may be related to a drug, or a combination of drugs, you should complete this Yellow Card or complete a report on the website at [www.yellowcard.gov.uk](http://www.yellowcard.gov.uk). For *intensively monitored medicines* (identified by ▼) report **all** suspected reactions (including any considered not to be serious). For *established drugs and herbal remedies* report **all serious** adverse reactions in adults; report **all serious and minor** adverse reactions in **children** (under 18 years). You do not have to be certain about causality: if in doubt, please report. Do not be put off reporting just because some details are not known. See BNFC (page 21) or the MHRA website ([www.yellowcard.gov.uk](http://www.yellowcard.gov.uk)) for additional advice.

|   |                          |   |   |                                       |
|---|--------------------------|---|---|---------------------------------------|
| <b>PATIENT DETAILS</b>  |                          | Patient initials: <u>N B</u>                                | Sex: M <input type="radio"/> F <input checked="" type="radio"/> | Weight (if known (kg): _____          |
| Age (at time of reaction): _____  |                          | Identification (Your Practice / Hospital Ref)*: _____       |   |                                       |
| <b>SUSPECTED DRUG(S)</b>  |                          |   |   |                                       |
| Give brand name of drug and batch number if known   |                          |   |   |                                       |
| <u>COMBIVIR</u>   | Route <u>PO</u>          | Dosage <u>1 tab OD</u>                                      | Date started <u>12/6/08</u>                                     | Date stopped <u>14/7/08</u>           |
| <u>ZOCOR</u>  | <u>PO</u>                | <u>10mg OD</u>  | <u>12/6/08</u>  | <u>14/7/08</u>                        |
|   |                          |   |   | Prescribed for <u>HIV prophylaxis</u> |
|   |                          |   |   | <u>High cholesterol</u>               |
| <b>SUSPECTED REACTION(S)</b>  |                          |   |   |                                       |
| Please describe the reaction(s) and any treatment given: <u>Blistering of lips and mouth</u>              |                          |   |   |                                       |
| <u>Tingling of face. Possible Stevens Johnson Syndrome?</u>   |                          |   |   |                                       |
| Date reaction(s) started: <u>14/7/08</u> Date reaction(s) stopped: _____                                  |                          |   |   |                                       |
| Do you consider the reaction to be serious? Yes <input checked="" type="radio"/> No <input type="radio"/> |                          |   |   |                                       |
| If yes, please indicate why the reaction is considered to be serious (please tick all that apply):        |                          |   |   |                                       |
| Patient died due to reaction  | <input type="checkbox"/> | Involved or prolonged inpatient hospitalisation             | <input checked="" type="checkbox"/>                             |                                       |
| Life threatening  | <input type="checkbox"/> | Involved persistent or significant disability or incapacity | <input type="checkbox"/>  |                                       |
| Congenital abnormality  | <input type="checkbox"/> | Medically significant, please give details: <u>? SJS</u>    | <input type="checkbox"/>  |                                       |

\* This is to enable you to identify the patient in any future correspondence concerning this report

1. Full details of the suspect drugs have been provided. The dates allow us to calculate duration of treatment and time to onset of the reaction

2. Brand names of drug should be provided if known

3. Further details of the adverse drug reaction have been provided, including the outcome

4. The reporter has provided their assessment of the seriousness of the reactions—here considered to have caused the patient to be hospitalised, and also to be medically significant

Please attach additional pages if necessary

| Please list other drugs taken in the last 3 months prior to the reaction (including self-medication & herbal remedies)  |           |                   |   |              |                        |  |
|---|-----------|-------------------|---|--------------|------------------------|--|
| Was the patient on any other medication? Yes / No If yes, please give the following information if known:   |           |                   |   |              |                        |  |
| Drug (Brand, if known)  | Route     | Dosage            | Date started  | Date stopped | Prescribed for         |  |
| <u>KALETRA</u>  | <u>PO</u> | <u>3 tabs BD</u>  | <u>12/6/08</u>  | <u>---</u>   | <u>HIV prophylaxis</u> |  |
| <u>FOSAMPRENAVIR</u>  | <u>PO</u> | <u>1200 mg BD</u> | <u>12/6/08</u>  | <u>-</u>     | <u>-</u>               |  |
|   |           |                   |   |              |                        |  |
| <b>Additional relevant information</b> e.g. medical history, test results, known allergies, rechallenge (if performed), suspected drug interactions. For congenital abnormalities please state all other drugs taken during pregnancy and the date of the last menstrual period.<br><u>Anaphylactic shock in 2006. Allergy to penicillin.</u><br><u>No other relevant history</u><br><u>3/6/08 CD4 cell count 1240 per mL<sup>3</sup></u><br><u>3/6/08 HIV viral load 550 copies/mL</u> |           |                   |   |              |                        |  |
| <b>REPORTER DETAILS</b>   |           |                   | <b>CLINICIAN (if not the reporter)</b>  |              |                        |  |
| Name and Professional Address: <u>A. N. Other</u>   |           |                   | Name and Professional Address: _____  |              |                        |  |
| <u>Wharfedale HIV Clinic</u>  |           |                   | _____   |              |                        |  |
| <u>St Martins Hospital</u>  |           |                   | _____   |              |                        |  |
| Post code: <u>SL2 0DB</u>   |           |                   | Tel No: <u>0207 12345678</u>  |              | Post code: _____       |  |
| Speciality: <u>GUM/HIV nurse</u>  |           |                   | Date: _____   |              | Tel No: _____          |  |
| Signature: <u>[Signature]</u>   |           |                   | Speciality: _____   |              |                        |  |
|   |           |                   | If you would like information about other adverse reactions associated with the suspected drug, please tick this box <input type="checkbox"/> |              |                        |  |
| If you report from an area served by a Yellow Card Centre (YCC), MHRA may ask the Centre to communicate with you, on its behalf, about your report. See BNFC (page 21) for further details on YCCs. If you want only MHRA to contact you, please tick this box <input type="checkbox"/>   |           |                   |   |              |                        |  |

5.

Concomitant medicines taken in the past 3 months have been included

6.

The reporter has also included some additional information on the indication, and has also reported that there is no other relevant history. This information helps prevent unnecessary follow-up with the reporter for patient history when it is unavailable

7.

For reports of patients with HIV, the HIV viral load and CD4 T-cell count are useful for assessment of the patient's disease status



# Black triangle

- [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Other/2013/09/WC500150608.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Other/2013/09/WC500150608.pdf)
- [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Other/2013/04/WC500142453.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Other/2013/04/WC500142453.pdf)

# Product problems

- Suspect contamination
- Stability
- Packing, labeling
- Suspect counterfeit

# Classification of Batch Recalls for Quality Defects

- **Class 1: Defects, which are potentially life-threatening or could cause serious risk to health.**
- Examples:
  - 1.1: Wrong product (label and contents are different products).
  - 1.2: Correct product but wrong strength, with serious medical consequences.
  - 1.3: Microbial contamination of sterile injectable or ophthalmic product.
  - 1.4: Chemical contamination with serious medical consequences.
  - 1.5: Mix up of some products (“rogues”) with more than one container involved.
  - 1.6: Wrong active ingredient in a multi-component product with serious medical consequences.

# Classification of Batch Recalls for Quality Defects

- **Class 2: Defects, which could cause illness or mistreatment but are not Class 1.**
- Examples:
  - 2.1: Mislabelling: e.g. wrong or missing text or figures.
  - 2.2: Missing or incorrect information - leaflets or inserts.
  - 2.3: Microbial contamination of non-injectable, non-ophthalmic sterile product with medical consequences.
  - 2.4: Chemical/physical contamination (significant impurities, cross-contamination, particulates).
  - 2.5: Mix up of products in containers (“rogues”).
  - 2.6: Non-compliance with specification (e.g. assay, stability, fill/weight).
  - 2.7: Insecure closure with serious medical consequences (e.g. cytotoxics, child-resistant containers, potent products).

# Classification of Batch Recalls for Quality Defects

- **Class 3:**
- Defects which may not pose a significant hazard to health but where a recall has been initiated (perhaps not required by the competent authority) for other reasons, but are not Class 1 or 2.

# Notifying quality defects

- [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Standard\\_Operating\\_Procedure\\_-\\_SOP/2009/09/WC500003190.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Standard_Operating_Procedure_-_SOP/2009/09/WC500003190.pdf)

# Drug Recalls

- Recalls are actions taken by a firm to remove a product from the market. Recalls may be conducted on a firm's own initiative, by supervising authority request.
- Competent Authorities should ensure that information concerning the recall of medicinal products is notified rapidly to other Member States, if the nature of the defect presents a serious risk to public health

# Rapid Alert Procedure

- The aim of the Rapid Alert Procedure is to transmit only those alerts whose urgency and seriousness cannot permit any delay in transmission.
- In each case a professional assessment must be made of the seriousness of the defect, its potential for causing harm to the patient or (in the case of a veterinary product) harm to animals, consumers, operators and the environment, and the likely distribution of the affected batch(es).



# MedWatch - What to Report ?

Adverse events that you observe or suspect for human medical products, including serious drug side effects, product use errors, product quality problems, and therapeutic failures for:

- Prescription or over-the-counter medicines, as well as medicines administered to hospital patients or at outpatient infusion centers
- Biologics
- Medical devices (including in vitro diagnostic products)
- Combination products
- Special nutritional products (dietary supplements, infant formulas, and medical foods)
- Cosmetics
- Foods/beverages (including reports of serious allergic reactions)

- What Not to Report to MedWatch:
- Vaccines:
- Investigational (study) drugs
- Reporting on Veterinary Medicine Products

# MedWatch Voluntary Report



## About Problem





\* Required Information

Please select the cause of the problem that applies below: \*

- For a problem with a product, including:
  - Prescription or over-the-counter medicine
  - Biologics, such as human cells and tissues used for transplantation (for example: tendons, ligaments, and bone) and gene therapies
  - Nutrition products, such as vitamins and minerals, herbal remedies, infant formulas, and medical foods
  - Foods (including beverages and ingredients added to foods)
  - Cosmetics or make-up products
  
- For a problem with a medical device, including:
  - Any health-related test, tool, or piece of equipment
  - Health-related kits, such as glucose monitoring kits or blood pressure cuffs
  - Implants, such as breast implants, pacemakers, or catheters
  - Other consumer health products, such as contact lenses, hearing aids, and breast pumps

# EMA

## European Medicines Agency gives recommendations to deal with sterility assurance concerns for DepoCyte

 Email  Print  Help  Share



### Q&A

Press release

Key facts

All documents

▶ Expand all items in this list

-  [About](#)
-  [What is DepoCyte?](#)
-  [What is the problem with DepoCyte?](#)
-  [What action is being taken?](#)
-  [What are the recommendations for healthcare professionals?](#)

| Name  | Language       | First published | Last updated |
|---|----------------|-----------------|--------------|
|  <a href="#">Questions and answers on the lack of sterility assurance with DepoCyte (cytarabine)</a> | (English only) | 24/08/2012      |              |

### Related information

- ▶ [DepoCyte: EPAR](#)
- ▶ [DepoCyte: Withdrawn application](#)

# Counterfeit and Falsified medicines

- WHO estimates that up to 1% of medicines available in the developed world are likely to be counterfeit.
- This figure rises to 10% globally, although in some developing countries they estimate one third of medicines are counterfeit.

# Counterfeit and Falsified medicines

- Counterfeit medicine is now a truly global phenomenon, at first thought to only affect developing countries, now known to impact upon developed countries.
- Counterfeiters now also target the most lucrative markets, copying high value, high turnover, high demand medicines.

# Counterfeit and **Falsified medicines**

- **Falsified medicines** are fake medicines that are designed to mimic real medicines;
- **Counterfeit medicines** are medicines that do not comply with intellectual-property rights or that infringe trademark law.

# Counterfeit and Falsified medicines

- The Europe is not typically a manufacturer of counterfeit medicine, however the Member states are a transit point and end user market.
- Counterfeit medicine is more commonly available to consumers via on line pharmacies, the WHO estimate 50% of medicines available from sites which conceal their physical address are counterfeit.
- Numerous fatalities have occurred around the world.



# Counterfeit and Falsified medicines

- Counterfeit medicine were found in the legitimate supply chain has been specifically designed to deceive pharmacists and patients that it is genuine, often only laboratory analysis reveals the counterfeit product!
- Contain a reduced amount of the active pharmaceutical ingredient, although the wrong ingredient or no ingredient at all have been found less frequently.
- All counterfeit medicines are dangerous.

# Counterfeit and Falsified medicines

- A pro-active programme
- A re-active programme

# Counterfeit and **Falsified medicines**

- Health – products containing banned, untested, or undeclared ingredients, products containing too much or too little active ingredient, with no information supplied on dosage or side effects, together with allowing Prescription Only Medicines to be sold without a proper consultation or prescription provided.
- Financial
-



**Fake  
Medicine**

**Do you know what  
you're buying online?**

# Would you purchase prescription only medicine without a prescription? You are not the only one

The majority of Brits (60%) are becoming far more trusting of buying goods over the internet than they were 5 years ago...<sup>1</sup>

- More than 1 in 7 (15%) UK adults have admitted to purchasing prescription only medicine without a prescription<sup>1</sup>
- What they probably don't know is that between 50-90%<sup>2,3</sup> of all medicines sold on websites which conceal their address are fake – a gamble not worth taking
- 78% of doctors agree that people are risking their health, and potentially even their life by doing this<sup>4</sup>

## So what are the real facts?

- Counterfeit medicines can contain harmful ingredients such as rat poison, boric acid and lead based road paint<sup>5,6</sup>
- They can also contain too little or too much active ingredient – some contain no active ingredient at all<sup>7</sup>
- Fake drugs can cause harm to patients and sometimes lead to death<sup>7</sup>
- It is often produced by people who have no appropriate qualifications in unhygienic surroundings<sup>8,9</sup>

Think twice about the medicines you buy

Don't bypass the healthcare system to get your prescription only medicine quickly or cheaply – it's not worth the risk

For more information speak to your GP or pharmacist or visit [www.realdanger.co.uk](http://www.realdanger.co.uk)



**References** 1. YouGov Plc data, September 2009. Participants: 2076 adults. 2. WHO and IMPACT factsheet. Counterfeit drugs kill! Last accessed on 13.10.09 from <http://www.gphf.org/Images/downloads/Impactbrochure.pdf> 3. In-PharmaTechnologist News. Last accessed 08.10.08 from <http://www.in-pharmatechnologist.com/Industry-Drivers/The-globalblast-of-fake-Internet-pharmacies> 4. Medix UK plc (2009) Market Research Report: Counterfeit Drug Study 5. Solomon, S. BC Woman killed by fake drugs bought online. National Review of Medicine. 2007; 4:13 6. Pfizer data on file 7. [http://www.who.int/medicineservices/counterfeit/Impact/ImpactF\\_Sien/index.html](http://www.who.int/medicineservices/counterfeit/Impact/ImpactF_Sien/index.html) 8. Pfizer data on file 9. European Alliance for Access to Safe Medicines: The Counterfeiting Superhighway. 2008, Medcom.