

# EUROPEAN HEALTHCARE FRAUD AND CORRUPTION NETWORK

## CHINOLONES

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# Chinolones

- Context and why
- Method
- Analysis
- Results
- Conclusions



# Chinolones

- Chinolones are a class of expensive antibiotics with limited and specific indications.
- Belgium ranks number three in Europe for the use of Chinolones.



## Chinolones: why?

- The inefficient use of antibiotics plays a major role in the development of bacterial resistance
- The expenditure weighs heavily on the total care budget: in 2005 25mIn € was spent on chinolones, the total cost of antibiotics was 122 mln €.

# Chinolones: method

- All data for a chosen period are gathered
- Limitation in quantity, with attention for the balance between number of care providers and the number of medical acts
- Representative sample of care providers and a random choice of their prescriptions
- Identification of patients with check for other prescriptions in the same month
- Interview with care providers (different criteria)
- Ranging of the diagnoses
- Evaluation of the prescriptions based on EBM and GMP.

## Chinolones: All data for a chosen period are gathered

- During March 2006 GPs made 94.525 prescriptions for chinolones.

These data are delivered to INAMI by the pharmaceutical tariffication organisations. Data analysts transform them into explorable databases.

# Chinolones: Limitation in quantity

- Attention for the balance between number of care providers and the number of medical acts
- First touchstone: 3540 GPs prescribed at least 10 times chinolones in that month. This means 32,4% of the prescribers is responsible for 68,7% of the prescriptions.



# Chinolones: Representative sample

- Second touchstone:
  - random sample (!) of 200 GPs, with random selection of 10 prescriptions
  - inclusion of top 10 GPs, with 20 prescriptions



# Chinolones: Identification of patients

- The patients (2186) for these 2200 prescriptions were identified.
- Other prescriptions of the same month concerning chinolones for these patients were added (356)
- The months before and after the period analysed were taken into consideration



# Chinolones: Interview with care providers

- Each GP was interviewed by a medical inspector:
  - Diagnosis
  - Information in the medical file
  - Type of contact (consultation, at home, guard duty)
  - Initiated by a specialist

# Chinolones: ranging and evaluation

- The reasons of prescribing are ranged in 9 categories
- The evaluation of the prescriptions is based on the recommendations of BAPCOC\*

\* Belgian Antibiotic Policy Coordination Committee



## Chinolones: results

- For 107 patients (111 prescriptions) no diagnosis could be notified.
- For 2056 patients one diagnosis was determined.  
1808 of them received one prescription
- For 23 patients two diagnoses were determined.

# Chinolones: results

Diagnoses	number	%
Bronchitis	601	28.6
Non-complex urinary tract infections	554	26.4
Infections of the upper resp. tracts	322	15.3
Complex urinary infections	196	9.3
Gastro-enteritis	187	8.9
Pneumonia	92	4.4
profylaxy	70	3.3
Dermatology	55	2.6
Others	25	1.2
<b>Total</b>	<b>2102</b>	<b>100</b>

# Chinolones: conclusions

- Bronchitis, non-complex urinary tract infections and infections of the upper resp. tracts form together 70.3% of the registered diagnoses. According to BAPCOC these are no indications to prescribe chinolones
- The most recent generation Chinolones has a significant part in the prescriptions
- Big packings are more frequent prescribed, even for short treatments
- For 28% of the examined cases, it was not possible to obtain information from the medical file
- The inappropriate prescribing behaviour is more widespread than simply among outliers

Thank you.

