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Avoidable visits in general medicine: identification method and avoidable cost assessment

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1. Introduction

> The frequency of doctor visits per capita in France is higher than in the other OECD countries,

- without apparent impact on public health.

> Part of the disorders which justify the physician visits could be directly accounted for by the patient insofar as they are benign.

> The purpose of this paper is :

- to evaluate in France the <u>proportion</u> of physician visits which could be replaced by an individual responsibility

- and the <u>potential savings</u> in this behavioral change, which would thus make it possible to re-deploy part of the health expenditure towards other services.

1. Introduction

Questions:

1. What is the proportion of visits of general medicine initiated for Ear, Nose and Throat (ENT) or digestive reasons, which could be avoided and transferred towards an individual self medication assumption?

2. What is the <u>average costs</u> of each strategy of assumption of responsibility:

- supported by the national scheme
- versus self medication?





> Medical database from 2003 issued from the COSEM health centers (Coordination des Œuvres Sociales et Médicales, Paris).

> The COSEM gathers three Parisian medical centers which offer an activity of physician visits, general practitioners and specialists, technical plates of biology and conventional radiology as well as a dental activity. (In 2003, the COSEM had carried out more than one million acts.)

> The study relates to a sample of the population made up of 48,000 visits of general medicine for 65,000 reasons for visit and 130,000 pharmaceutical regulations in 2003.

2. data

2.2 Data description

> The reasons of visits and the diagnosis brought by the physician were paired with the International Classification of the Diseases.

> The drugs are referred by code Club Inter Pharmaceutical (CIP).

> Classification EPHMRA* was used in order to distribute the drugs in different <u>sub-groups</u> in a hierarchical way.

* European Pharmaceutical Market Research Association

2. Data

2.3 Representativeness of the sample

> The population of the <u>general physicians</u> of the COSEM has a structure of age and sex comparable with those of the French physicians.

(Comparison starting from data ADELI at January 1, 2003.)

> The COSEM patients population is <u>less old and more female</u> than the population of the patients in France.

(Comparison was carried out starting from the data of INSEE and the general scheme.)

> We exclude the patients with CMU (Couverture Maladie Universelle), ALD (Affection de Longue Durée), and AME (Aide Médicale d'Etat).

> We exclude the patients that are less than 3 years and more than 65 years old.

3.1 Algorithm for selecting the visits known as "avoidable" of ENT and Digestive diseases

1. Selection of the avoidable visits <u>from the nature of the reasons</u> for the visit:

• visits containing a single reason ENT or Digestive.

• visits containing combined reasons of type ENT and reasons of general demonstrations type (ex: cold and cephalgias) or several reasons ENT (ex: pain of the throat and cough).

• visits containing combined reasons of Digestive type and reasons for general demonstrations type (ex: diarrheas and cephalgias) or several reasons of Digestive type (ex: distension and constipation).

3.1 Algorithm for selecting the visits known as "avoidable" of ENT and Digestive diseases (continuing)

2. Exclusion of the not-avoidable visits <u>from the drugs</u> present on the regulation among the visits retained at the time of the first stage:

• non-acceptable drugs within the framework of the self medication of a symptom of ENT and digestive deseases (heavy pathology in ENT or Digestive)

• the drugs known as parasitic which are not in direct link with the reason for the visit (a carryforward towards a new visit is foreseeable)

• Antibiotic drugs

• Drugs of the anti-inflammatory drugs type not steroid (AINS)

3.2 Method of calculating of costs

> Only the <u>direct costs</u> are taken into account, excluding indirect and intangible costs.

> (It is supposed that the avoidable visits correspond to benign pathologies, which do not justify indirect costs such as the sick leave.)



3.2 Method of calculating of costs (continuing)

> The costs are consisted by the refundable part of:

- the visit of the general physician,
- of the prescribed drugs.

> The tariff of the visits is the conventional tariff of a general practitioner visit fixed by the health insurance.

> The drugs prices are indicated by CEGEDIM database.

> The refunding rates are those fixed by the health insurance.

4.1 Visit reasons

There exists a strong concentration of the reasons for visit in general medicine: the first 30 reasons account for 78% of the activity of general physicians.

- 1 Toux
- 2 Douleur de la gorge
- 3 Renouvellement d'ordonnance
- 4 Explications des résultats d'analyses et d'examens
- 5 Examen médical
- 6 Fièvre
- 7 Douleur
- 8 Rhume
- 9 Rhinorrhée aiguë
- 10 Douleur abdominale
- 11 Céphalée
- 12 Fatigue
- 13 Lombalgie
- 14 Syndrome grippal
- 15 Diarrhée
- 16 Vaccination
- 17 Anxiété
- 18 Certificat d'aptitude au sport
- 19 Contrôle biologique
- 20 Anxio-dépression
- 21 Eruption cutanée
- 22 Rhinopharyngite
- 23 Dorsalgie
- 24 Vomissements25 Douleur du pied
- 26 Cervicalgie
- 27 Allergie
- 28 Procédure administrative
- 29 Nausées
- 30 Otalgie

More than 1400 different reasons for visit in base COSEM.

Nearly 6000 different combinations.

MOTIF DE CONSULTATION			COMBINAISON DE MOTIFS		
n	% cumulé de n	% cumulé de C	n	% cumulé de n	% cumulé de C
5	0.3%	32%	5	0.1%	27%
10	0.7%	50%	10	0.2%	39%
15	1.0%	62%	15	0.2%	46%
20	1.4%	68%	20	0.3%	51%
30	2.1%	78%	30	0.5%	59%
50	3.5%	87%	50	0.8%	68%
100	7.0%	92%	100	1.6%	76%

4.1 Proportion of visits that can be self medicated: ENT and Digestive, floor hypothesis



4.2 Drugs In ENT, 5 drugs classes explain 80% of the lines of regulation.

NOM	% cumulé		
DOLIPRANE	7%		
OROPIVALONE	11%		
EFFERALGAN	16%		
LOCABIOTAL	20%		
BRONCHOKOD	24%		
CLAMOXYL	27%		
PIVALONE	30%		
MUCOMYST	32%		
HEXASPRAY	34%		
RHINOFLUIMUCIL	36%		
MAXILASE	38%		
ADVIL	40%		
RHINADVIL	42%		
ZITHROMAX	43%		
RULID	44%		
NECYRANE	46%		
SILOMAT	47%		
ZECLAR	49%		
TOPLEXIL	50%		
ORELOX	51%		
SOLUPRED	53%		
LYSOPAINE	54%		
SURGAM	55%		
DAFALGAN	56%		
POLERY	57%		
AERIUS	58%		
Amoxicilline	59%		
ALFATIL	60%		
NUREFLEX	61%		
BECONASE	62%		



4. Results 4.2 Drugs For digestive diseases, 4 drug classes explain 80% of the regulations.

NOM	% cumulé
MOTILIUM	11%
SPASFON	21%
SMECTA	29%
DEBRIDAT	34%
ERCEFURYL	38%
DOLIPRANE	41%
IMODIUM	45%
TIORFAN	47%
DUSPATALIN	49%
ARESTAL	51%
EFFERALGAN	53%
VOGALENE	54%
DAFALGAN	56%
PRIMPERAN	58%
FORLAX	59%
PANFUREX	60%
BEDELIX	62%
MOPRAL	63%
METEOSPASMYL	64%
LACTEOL	65%
GAVISCON	66%
VISCERALGINE	67%
MAGNE-B6	67%
ULTRA-LEVURE	68%
ADVIL	68%
ACTAPULGITE	69%
PARIET	70%
CARBOSYLANE	70%
CLAMOXYL	71%
INIPOMP	71%



4.2 Drugs The proportion of visits really "self-medicable" in ENT is in the following tunnel:



4.2 Drugs The proportion of visits really " self-medicable " into DIGESTIVE is in the following tunnel:





Patient Age

4.3 Costs (following)

Estimate of the average costs of a possible <u>self medication</u>: no standard methodology, treatment case by case

Example:

Pathology: Acute bronchitis (viral in 80% of the cases)
Symptoms: Cough with more or less purulent spittles
AFFSSAPS Recommendation (Conference of consensus) :
No proof of the thinners [*fludifiants*] effectiveness
Self medication: Mocu- thinners
It is only on the market of the loose coughs
(60% of the sales of the drugs of bronchitis)
Cost (euros) : 5





4.3 Costs (following)

Estimate of the average costs of a possible self medication:

• of approximately 5 euros for 1 box of speciality drugs

• of approximately 10 euros maximum, in the event of associated advices



4.4 Total costs of the visits which can be accounted for by self medication

Total costs (in million euros)

Hypothesi s	National scheme	Complem. Insurance	Patient	TOTAL	Self medication
Ceiling	512	123	197	833	145
Floor	144	35	56	236	46

5. Conclusion

Proportion of avoidable visits:

- between 10 and 50% according to the age group.

Avoidable costs:

- for the national scheme: from 15 to 20 euros

- for the complementary health insurance companies : around 5 euros,

- for the patients: from 5 to 7 euros

Alternative: self medication

- the cost of self medication should be about 5 euros for the patient.



5.2 Extension

Self medication is with the load of the patient.

-> Thinking on a mode of refunding by the health system.

