

Quarterly Journal of Research and Quality in General Practice founded in 1996 by SIQuAS VRQ (Primary Care Area) and SIMG of Verona.
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 Web Site: <http://www.rivistaqq.it>



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EDITORIAL

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Doctor Gardini, President of SIQuAS, comments the article of Mola and others, published on QQ n.2.

“There is no evidence so far that the quality system is contributing to the improvement of patient’s health”. There are way too many paper certifications that do not lead to a real qualification of the care process. General practitioners have to consider the most relevant issue to put the patient on top of their priorities. There are 3 challenges that the GP has to face with courage and determination: first, appropriateness of the diagnosis and therapy, second the coordination with other jobs, and last but not least the care continuity to the people from whom they get their most appreciation. The tool to do so could be the voluntary accreditation to the excellence, using indicators that we are managing to create day by day, in order to give ethical and scientific dignity to our work.

The most famous mentor of this newsletter, J.T.Hart, have warned us to keep clear and organized the patients records. He had chosen to take notes about the history of his own community on little piece of papers.

Net Test consists on a constant verification of our database from an administrative perspective, and this represents an opportunity to think about the history of the relationship between doctors and patients, to check if we could manage to conclude our complicated decisional processes.

Furthermore, it is a safe starting point on which we can build a serious research.

General practice needs analytical datas and statistical support, that help us to understand each aspect of care process. On page 5 you will see a picture about how a doctor can involved about educating his patients to health issues. See the web site:

www.ginasma.it/paziente.htm; www.piedediabetico.org

The tool to obtain an epidemiological profile about the demographics is to link the diagnosis to the disease and Moretti’s article talks about a useful experience in Southern Italy.

I	Editorial
I	Quality in GP and ISO
2	The quality of our archive of computerized clinical records: administrative epidemiological test on the denominator for patients in all age groups; clinical test for patients over-fifty
6	GP’s lifestyle
6	Data bank in General Practice and Good Clinical Practice, General Practice experience in Caserta 1 Sanitary Section

Quality in GP and ISO

Comment to article QQ vol 8 n 2 pag 4: “Iso 9001:2000 and quality in general practice”

Dr. **Andrea Gardini** - Siquas Vrq President

The contribution of the colleagues Mola, Milan and La Vecchia to adjust the organization in a GPs practice to the ISO norms is quite stimulating.

The fact that there is no medical literature available on the application of ISO norms to GP, may be interpreted supposing that on one side, there are people who tried, receiving benefits but did not feel it was necessary to describe it,

and on the other side, there are people who tried, but didn't make it, or considered it improbable, impossible or useless.

The application of norms coming from the industrial production to GP risks causing the underestimation or even the loss of some words such as "patients", medical examination, medical history, physical examination, diagnosis, prognosis, medical treatment, record-cards, counsellings, co-operation with specialists and nurses, hospitals, words which have been part of the doctor's everyday activity for about 4000 year. These words do not appear in the ISO vocabulary, which tends to look for and create a cultural and lexical standardisation, which could be good for any profession or production activity. But, is GP a production activity? Could the intangibles that it produces be considered equivalent to physical assets, which the ISO model actually wants to improve? (model which goes back, according to some people, to the Taylor production model made up of "STRUCTURE, PROCESSES, PRODUCTS and PROFITS"). We could ask ourselves whether such organisational model is useful to treat patients, as it is useful to make refrigerators.

Today, furthermore, we are asking ourselves more and more if there is any evidence that the ISO model can make those marked improvements anywhere in the "process" as in the "industrial product" that it should cause, according to them. The ISO consultants have never provided data, at least within the medical field, and the European research "ExPeRT", we have mentioned several times, has never noticed advantages in public health in the literature consulted. It does not mean, however, that we cannot attempt new possibilities. But there no evidence so far that the so-called "quality system" is helping improve the patients' health. The whole international quality world has been mobilised in this research. For instance, there already is some partial data. There is evidence that clinical audits and "peer reviews" have some benefits; and that the reorganisation of some processes (managed care), which are drawbacks for patients, guarantee that those outcomes improve. Today, furthermore, GP is subjected to three challenges: _ diagnostic and therapeutic appropriateness, _ integration with other treatments and professions present on one's own territory, _ to guarantee welfare continuity for the people treated whose satisfaction (and they know this for certain) comes from it.

But the GP, who cuts him/herself off the context, today risks more and more hurting someone else and oneself.

The impression that emerges from this work is that they made an effort, more specifically to self-analyse their own organisation away from the context and health needs of those who underwent certain treatments, from the requests for integration, from the outcomes in terms of health of every single person and

the community that they make. Even if mentioning external customers represents a signal of interest from the outside. But it is not just an approach towards efficiency that leads colleagues who are so dedicated to defend and develop GP in Italy. Even if we could adjust the organisation in a GP's practice to the ISO norms, we should also adjust the district, rehabilitation structure and home assistance to the ISO norms... Then, a question comes up naturally: why obtain a certification? And why just according to those general norms, and why should we consider the processes and not the assistance outcomes? Isn't there the risk to have too much paperwork, which does not come up with a real improvement of "care"? Knowing that ISO norms seem to improve work in repetitive activities (laboratories, transfusion centre, pathologic anatomies, all activities which operate on "dead" or "fixed" material), is it possible to apply them to the relationships with healthy or sick people who go in and out from GPs' practices? Nevertheless, hasn't the medical profession already created for some thousands of years any important marked norms, constantly renewed by Professional Associations, which are represented by those determined by the codes of conduct? Why don't we adapt the ISO norms to the Codes of conduct instead of adapting the oldest profession in the world to norms valid for all production sectors and, therefore, inevitably without individualness? Anyway, good luck for those colleagues who are attempting this important task. To them the faculty of testing just required by the conclusions of the "ExPeRT" task. In fact, anyone, who undertakes a path to obtain ISO certification, to achieve excellency or with institutional accreditation, to carry out the "Visitatie" or apply the model of the European Foundation for Quality Management, is required, from this important European group of experts for the external quality evaluation, the following: evaluate one's own patients' health before doing anything, then do one's best with dedication and competence in applying the model; and, in the end, monitor the effect of the model on the main aim of the institutional agency, that is to treat well and better all people who depend on GPs.

The quality of our archive of computerized clinical records: administrative epidemiological test on the denominator for patients in all age groups; clinical test for patients over-fifty

Franco Del Zotti (VR), Enzo Brizio (CN), Carlo Andrea Franchini (VR), Stefano Galassi (RN), Nicola Tarallo (SA), Lista Netaudit (www.netaudit.org)

Background

J.T.Hart, in his article in exclusive for QQ (www.rivistaqq.it -May 2003), claims a GP's capital depends on the good "preservation" of his/her "Denominator", which means the administrative-epidemiological reliability of his/her private patient list, as it is in our Personal Computers (PCs). Motivated by Hart's important message, we planned an Audit, which analysed the Denominator Quality of our computerised list of patients in comparison with a golden Standard (Lists of patients managed by quality Local Health Units (USL)).

Actually, the GPs were prepared at the university to answer the single patient's needs and they learned little in terms of professional training, in relation to the techniques for the administrative and epidemiological management of groups of patients. Furthermore, the inadequate number and specific training of secretarial personnel may stand in the way of a good "maintenance" of the patient list recorded in our PCs. GPs feel actually comfortable when they answer the questions of single patients, whereas they feel uneasy when they have to schedule administrative or clinical controls for those patients who are listed but are not habitual visitors of the medical office. However, a more accurate administrative-epidemiological system may make all the difference in the development of systems such as Netaudit or, even more, of big databases in General Practice (GP).

It is, therefore, necessary for GPs to have a simple system, which allows a periodic control (random) of the discrepancies amongst the patients included in the List of the Local Health Unity (USL) and those in our archive of computerised clinical records. We took advantage of the launch of this new method and we carried out a second test: a randomised evaluation of the professional quality of 4 clinical records at a time

Objectives and Methods

1. Evaluation of the Quality of the administrative Management of our Denominator, as to the False Positives

1.1. **(Total PC/Total Local Health Unit):** they compared the total amount of the patients included in the list of our computerised clinical records with the Golden Standard (lists of patient made by Local Health Units, which stand out for their good administrative "maintenance" of choices and revocations). The GPs who took part in the Audit were those whose list of patients managed by the Local Health Unit was, according to a preliminary evaluation, without mistakes both on paper and in the computer: in particular, the names of those patients who deceased more than three months before, did not appear on the list.

1.2. **Identification of False Positives (FP) on 7 randomised clinical records per GP.** The Test was carried out on 7 clinical records, chosen randomly in our List of patients. They

considered as False Positives (FP) those patients who were included in our List but not in the List of the Local Health Unit (minimum of FP per GP: 0/7; maximum 7/7).

2. The Quality of the clinical-epidemiological management of 4 randomised clinical records per GP refers to patients over-fifty

- 2.1. From our computerised clinical records, we extracted only patients over-fifty. We decided to take into consideration patients over-fifty, since within this age group it was easier to agree on the usefulness to check the chosen clinical and preventive variables.
- 2.2. 4 randomised clinical records belonging to patients over-fifty, which did not have any administrative imperfections
- 2.3. Single clinical records were consulted and then some index-fields were checked

Criteria to evaluate the compilation quality of the index "fields"

1. As regards the field "height", one-off evaluation (whether it was indicated in the clinical record, or not, at least once in each clinical record)
2. As regards the blood pressure: taken at least once over the past 2 years;
3. As regards the other fields (weight; smoking habit; Cholesterol; Haemoglobin; Glycaemia): at least 1 measurement over the past 3 years.
4. In the end, the last 3 fields depended on the diagnosis and were independent from the time-factor
 - 4.1. **"blank diagnoses": significant diagnoses which were not linked to operating criteria** (e.g. diabetes and 2 glycaemia that exceed 140 in the diabetes were analysed for each clinical record; hypertension and threshold values of blood pressure; rheumatic disease and "major criteria", etc). We checked whether the diagnosis was supported or not (filled in) with the presence of these criteria in the clinical record. The patient was classified with a BLANK DIAGNOSES, if **at least one** "blank" diagnosis was found.
 - 4.2. Furthermore, the number of clinical records in which there were important undiagnosed problems, which needed a microscopic exam (in this context, they wanted to test the quality of the follow-up of significant problems) were analysed. For instance, if in a clinical record a rectorragy was registered and you did not find a colonoscopy with its result, then the clinical record had to be considered with an "undiagnosed problem". The patient was classified **"with undiagnosed problems"**, if **at least an important undiagnosed problem** was found.
 - 4.3. In the end, whether our test could give a further result was checked: the individuation, during the test, of new problems not recorded in the List. The patient was classified **"with**

new problems”, if at least a new important problem was found. For instance, if while skimming the clinical record during this Audit, you found that an anaemia was reported, wrists pain and high values in the sedimentation rate (VES), but there is no indication of an RA suspect or something like that, then we would have had a clinical record in which we were identifying a *new problem*

Randomisation Method: regarding the randomisation, all the participants were asked to use the same method: the consultation of the same website where one could be assisted in the randomisation procedures.

Results

GPs who took part in this experiment: 31 Italian GPs took part in the Netaudit, by the following norms: they had to belong to Local Health Units, with quality administrative archives of the their patients. The average age of GPs who participated was of 49.4 years (SD 2.7) and the average number of patients per GPs was equal to 1422.2 patients (SD 176).

Local Health Unit Files used: 23 GPs received from the Local Health Unit a List of Patients only on paper; 8 GPs received the List on electronic file too. 30 GPs (96.8%) out of the total amount of GPs received the List from the Local Health Unit less than 6 months before.

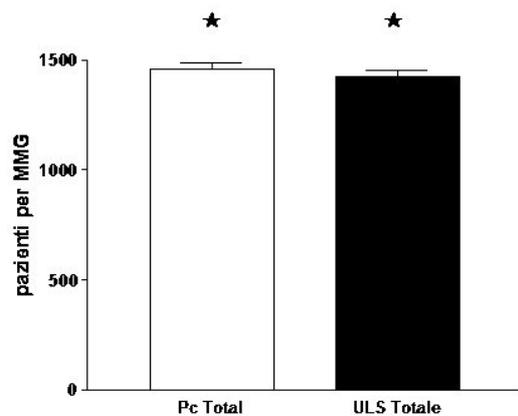


Figura 1
(★ p<0.007 T test paired)

Administrative Evaluation

Average number of patients included in the List: (fig. 1) 1458.2 (SD 168.5) patients included in our computerised list, against 1422.1 (SD 176.7) patients included in the list provided by the Local Health Unit, with a marked difference in the T test, paired (p<0.007), with a CI (95%) of the difference that ranged from 10.6 to 61.6 patients (fig. 1). Just 9.6% of the GPs had a number of patients lower than the Local Health Unit; 13% had exactly the same number of patients; the remaining proportion (80.4%) had a higher number, with a group of 3 GPs that had over 100 patients, compared with that of the Local Health Unit.

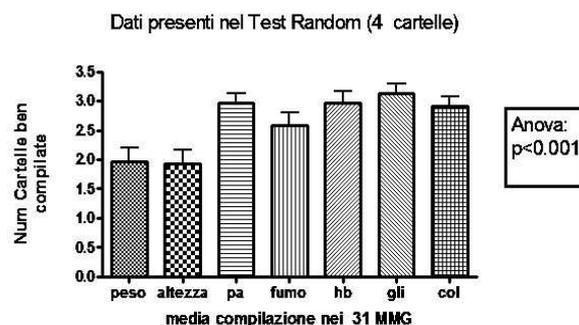
Random test on 7 clinical records taken out from our PC and “crossed” with the lists of the Local Health Unit, which means FALSE Positives (FP) in the computerised list: On average 0.3 FP out of 7 clinical records per GP (minimum 0; maximum 3), with a high percentage of GP with FP equal to zero (71%)

Evaluation of the method to fill in the clinical fields on 4 random clinical records of patients over-fifty

They compared the number of clinical records, which were duly filled in, as regards the following fields: weight; height; smoking habit; blood pressure; haemoglobin, cholesterol; glycaemia. (see Tab.)

Title	Mean	Standard deviation	Variance coefficient	Maximum	Median	Minimum
Peso	1.967742	1.277599	0.649271	4	2	0
Altezza	1.935484	1.26321	0.652658	4	2	0
Press. Art.	2.967742	0.948116	0.319474	4	3	1
Fumo	2.580645	1.285151	0.497996	4	3	0
Emoglobina	2.967742	1.048296	0.35323	4	3	1
Glicemia	3.129032	0.957146	0.305892	4	3	1
Colesterolo	2.903226	0.907555	0.312602	4	3	1

In particular, the result of the Anova test (Kruskal-Wallis test) (Fig 2) was important (p<0.001), along with the following evaluation to the Dunn Test for the multiple comparisons, which displayed the average results of weight (1.96) and height (1.93), significantly lower if compared with the more technical fields (haemoglobin; cholesterol; glycaemia; pressure), which showed, on average, a score of 2.9 on maximum 4 clinical records. The field regarding the smoking habit was averagely filled in: 2.5 out of 4 clinical records contained this datum.



“Blank” diagnoses; Undiagnosed problems; New problems: 31 GPs reported an average of 0,9 clinical records(out of 4 random clinical records) with “blank” diagnoses (and, that is to say, with a code label, but without any test or supporting operating criteria); 1.03 out of 4 clinical records with significant undiagnosed problems (and, this means with some problems in the follow-up); 0.6 out of 4 clinical records in which a “new problem” was found

Conclusions and comments of this Audit on the administrative test

This experiment was intended to introduce in Italy an integrated and user-friendly system to self-audit the competences of single GPs, regarding the evaluation of administrative-epidemiological quality of the computerised lists of patients (Denominator) and the recording quality of essential clinical data. However, we have to discriminate the GP’s level of “responsibility” in these two different tests. In the

administrative Audit, the GP is just one of the protagonists. Actually, most of the GPs could not take part in this Netaudit since their Local Health Unit is not able to provide Quality Lists. Few Local Health Units, furthermore, provided the lists on electronic files, and this for instance stopped us from carrying out the test on False Negatives (which were in the file of the Local Health Unit, with automatic numbering which allows the randomisation; absent in our lists in our PC). In the administrative test of the 31 GPs, we obtained encouraging results, since the number of False Positives, in the random test on 7 clinical records, was low. Anyway, the deviation of the global evaluation of our clinical records from the one of the Local Health Units (low), even if moderate, tends from a statistical point of view, to display a certain number of False Positives, which means patients who are recorded in our list and absent in the lists of the Local Health Unit. The deviation in favour of the FPs, furthermore, more specifically refers to subgroups. What's the reason for this trend? It could depend on a mismatch: while the clinical and practical advantage of quickly recording a new patient in the PC (it easier to prescribe if you use a PC) is immediate, and there isn't a strong practical motivation, or an inducement to cancel the patients who changed GP. Furthermore, they could be somewhat reluctant to look at the clinical records of patients who died or changed GP. In the end, there can be important logistic limits in some medical offices respect to others (e.g., regarding the presence of secretarial personnel and the way they work). It will be probably necessary, in the near future, to design a system for a computerised monitoring of those age groups at the risk of a "bad management" marker: actually, some GPs found lots of anomalies a propos patients over-eighty, along with some patients who were "over 100-105 years old" (a clear False Positive risk marker). In order to resolve all the previous matters, we will need future Audits, with a higher number of GPs and randomised clinical records for both administrative and clinical tests. Moreover, the involvement of secretarial personnel and Public Health Authorities will be essential.

Conclusions and comments on the Audit on random Clinical Tests on 4 clinical records

First of all, we'd like to point out here that the choice to carry out a test on just 4 random clinical records does not of course satisfy statistic criteria, but the need to combine a new Audit model with a low workload for those who take part in a net-audit (here is our slogan "Audit for GPs only, in less than 3 hours"). After making this necessary introduction, we can now comment the results of the clinical test. If you read the Table 1, a really low and insufficient score in the anthropometrical "fields" (weight and height, on average duly filled in, in less than half random clinical records is evident: 1,9), when compared to the standard clinical ones (blood pressure and laboratory tests (on average duly filled in, in 2.9 out of 4 clinical records). Let's put forward some working suggestions.

1. The anthropometrical measurements are very difficult to be taken in a medical office: do you have to undress the patient? If so, how long does it take you, for instance in winter, in a medical office, where everybody is in a hurry? And, if you do not undress the patient, how can you take rough measurements? Do you only take the patient's shoes off and then round off the clothes weight? But, how much do the clothes weigh?

2. Blood pressure and laboratory data are more sophisticated, but easier to be taken. All this does not eliminate, however, the need to improve the frequency, the measurement quality or at least the knowledge of approximation techniques. The datum regarding the smoking habit was encouraging even if still not sufficient (2,5 out of 4 clinical records, were duly filled in). Maybe, the persuasive warnings made by the national and international authorities began achieving a certain effect.

We'd like to highlight, in the end, a fair variability of the way the 31 GPs recorded the data, as regards above all, height and weight (with relative standard deviations over 60%)

Conclusions on "Blank" diagnoses; Undiagnosed problems; New problems

Instead of discussing the final data, from a "quantity" point of view, we can point to the fact that, during the discussion, a common thought emerged amongst the GPs and it can be summed up here in two points: a) trying to formalise the "quality dynamics" of "filling out the clinical records" comes in very useful; b) it will be necessary, in the near future, for the GPs to analyse in depth and more widely these methodological requirements for periodical self-audits of their clinical records. All this cannot be separated from the medical-computer techniques, in order to turn the computerised clinical record from a "drudge" of a huge quantity of data to an intelligent "co-pilot" in a sort of diagnostic path and active monitoring of patients' problems.

List of the GPs who took part in the Netaudit

ARTEBANI Adriano, AUGRUSO Angelo, BALESTRAZZI Marina, BARUCHELLO Mario, BERTOLUSSO Luciano, BONETTI Dario, BRIZIO Enzo, CALISESI Romano, CARACENI Luciano, COVANTI Massimo, CRESSONI Maria Chiara, DEL ZOTTI Francesco, DOLCI Alberto, FRANCHINI Carlo Andrea, FRAPPORTI Guglielmo, GALASSI Stefano, GRASSI Marco, MARCHETTI Roberto, MASSIGNANI Dino Mario, NARGI Enzo, NEGRINI Augusto, NOVELLA Guido, QUATTROCCHI Piero, RANZANI Luca, RUBICINI Giuseppe, SAVINO Andrea, SCHIANCHI Paolo, TARALLO Nicola, TONDI Lidia, TONELLO Paolo, UBALDI Enzo, VISONÁ Eugenio

GP's Lifestyle



Images of filial love: a chronic sufferer's daughter prepares these mini-bags for medicines everyday – which were designed and realised by her – for her mother



The book by Franco Del Zotti "Tra case e casi - i come e perché della Medicina di famiglia" (Among houses and cases – the round abouts in General Practice) has just been published - edit. Levante Editori - Bari - 2004. A very low price: 17,50 euros for 188 pages. Email address: levanted@tin.it - Phone/Fax number: 080 5213778 - Address: Levante Editori, via Napoli 35, BARI. You can order the book directly to the Levante publishing house, without going to a book-shop, and WITHOUT further postal charges

Data bank in General Practice and Good Clinical Practice, General Practice experience in Caserta 1 Sanitary Section

Salvatore Moretti, MD, GP, district 25 manager- Caserta 1 Health Authority

Michele Giuseppe Tari, MD, responsible manager control service – Caserta 1 Health Authority

Foreword

The need to join financial rigour and sanitary choices has brought Local Health Authority (LHA) to take useful actions to reduce costs and protect the quality of services.

General practice, for its importance within the organization of Sanitary Services, is undergoing regular inspections in order to rationalize costs. For this reason, continuing professional development and the use of General Practice Computer Systems seemed to be the solutions of the actions undertaken by Caserta 1 HA to reach the goal of clinical governance.

Aims

General aim: to manage the use of available resources through reinforcing and diffusing a culture of a medicine based on evidence, quality and an epidemiological approach to health problems.

Specific aim: 1) to build a relational database of the drugs utilization by installing a net system which involves GPs.

Specific aim: 2) to supply documents about the use of the resources, to commission care pathways for the context of primary care

Materials and methods

The doctors involved in the project extracted from their databases a file of pharmaceutical prescriptions that included:

- Patient's fiscal code
- Prescribed drugs classified as ATC
- Number of blisters
- Diagnoses/reasons of prescription classified as ICD IX

The file is then sent via e-mail to the central database of the Local Health Authority which thus developed the database for any doctor. The file must have quality requirements, such as fiscal codes and ATC and ICD IX codes, in order to be validated.

The network described is an intranet (supported by Local Health Authority) where it is possible to access only with personal identification and password. The doctor receives via e-mail a confirmation protocol and information about possible errors.

Information sources

In the last months of 1999 and during 2000, Caserta 1 Health Authority has planned and carried out a

central database containing the prescription of “justified” drugs that GPs have provided by conferring every month data of prescriptions and related diagnostic reasons.

In 2003, 243 General Practitioners (whole GPs working in Caserta 1 HA are 305) were connected to the database and many of them have uploaded their data since 2001. The data collected describe a longitudinal history of prescriptions which represents both doctors and patients assisted by Health Service as shown in tables and figures at the end of the article.

Table 1: Characteristics of all GPs and the sample of GPs connected to central database in the year 2002

Figure 1: Comparison between whole population and the sample of people whose data were collected in central database (according to age)

Figure 2: Comparison between whole population and the sample of people whose data were collected in central database (according to sex)

According to our knowledge, this is the first database assembling the doctor’s intention to treat a sample representing the local context, without any interference in every day practice, and it has the following objectives:

- Monitoring “just in time” drug prescriptions according to category and related diseases;
- Analysis of prevalence of main diseases affecting population
- Control of prescriptions’ accuracy;
- Assessing reactions to suggestions about good clinic practice implemented through diagnostic and therapeutic pathways.

Formative and educational

At the beginning of 2000 a working group, including 6 tutors (GPs), 2 experts in clinical epidemiology, 2 medical managers, 3 computer experts was established. This working group collaborates with clinical “opinion leaders” by selecting themes of interest.

Under the group’s input, all the informations about appropriate drugs utilization (a drug prescription linked to related diagnose) are extrapolated from the database; the working group analyzes the informations and discusses with clinical opinion leaders, then, together, they look for evidence in literature on the theme of interest, and writes a draft document called Therapeutic and Diagnostic Care Pathways (TDCP)

Informations about local drug prescription, collected “evidence” and TDCP documents are then discussed during plenary meetings which involve the 120 GPs who supply the central database and are the main source of collected informations.

During these meetings TDCP draft documents have been refined, and the final version for 2001 has been agreed upon:

- Cystitis
- Pharyngitis
- Sinusitis
- Otitis

And for 2002

- TDCP Osteoarthritis
- TDCP Depression in General Practice
- TDCP Heart failure in General Practice
- Review Antibiotic Therapy in General Practice

Results

Aim 1: Monitoring timely prescription for drugs class and related diseases.

In Caserta 1 Local Health Authority, GPs who used monthly for 3 years the central database, are 243 on a total of 305 GPs working in Caserta 1 LHA. The system allows to examine the prescriptive trends which are timely and more credible than data collected by the territorial pharmaceutical file.

Figure 3: pharmacological classes used for patients suffering from hypertension; absolute frequency of utilization;

Figure 4: NSAID and Coxib utilization in patients suffering from OA according to age;

Table 2: intention to treat for Osteoarthritis

Table 3: gastric protection in patients suffering from OA

Aim 2: Prevalence analysis of main diseases in population. The reasons linked to prescription has allowed to obtain epidemiologic informations such as:

Table 4: Measures of prevalence for patients treated with antihypertensive drugs for hypertension problems. *We have considered new cases those patients who have not been treated with antihypertensive drugs in the previous year (code ATC CO2 CO3 CO7 CO8 CO9)*

Table 5: some data of co-morbidity of patients suffering from hypertension treated in 2002 with antihypertension drugs;

Figure 5: distribution of patients affected by heart failure according to sex and age;

Figure 6: distribution of patients suffering from Arthritis Rheumatoid and Osteoarthritis according to age

Aims 3 and 4: control of the accuracy of prescriptions; control of response to good clinic practice suggestions implemented by TDCP

Table 6: comparison in the course of time between antibiotics mainly prescribed to treat cystitis by doctors associated to TDCP during the years 2001/2002

Ciprofloxacin indicated as first choice drug in short therapy.

Table 7: comparison in the course of time between drugs used by GPs associated to TDCP pharyngitis. Amoxicillina indicated as first choice in treatment.

Table 8: comparison in the course of time between medicines used by GPs associated to TDCP medium-acute otitis.

Table 9: comparison between prescriptions to treat pharyngitis prescribed by doctors associated to TDCP and not (Sept.2001-Febr.2002)

Conclusions

The hypothesis that the database use, as a support to a formative action of audit and feedback, could provide encouraging results for the research of clinical accuracy seems to be confirmed thanks to our experience.

Computers represent a powerful tool of reflections and knowledge, when data provide careful informations, clinically credible, statistically efficient, economically applicable and easy to assess.

Behavioral analysis according to the principles of EBM and the sharing of the formative and educational process of a behavioral model, seem to find supporters among participants to this experience with the result of an improved clinical and therapeutic accuracy.

Tab 1

Characteristics of all GPs and the sample of GPs connected to central database in the year 2002

	ASL CE 1 (esclusi pediatri)	Dbase Gen2002-Dic2002	
N medici	305	115	37,7% (potenza del campione)
Età media \pm DS	50,9 \pm 5,4	49,2 \pm 3,9	Ns
Sesso	18,0% (F)	15,6% (F)	
Età media \pm DS	48,7 \pm 3,0	48,8 \pm 2,6	Ns
N assistiti	357.738	145.866	40,8% (potenza del campione)
Età media \pm DS	41,5 \pm 20,7	41,3 \pm 20,3	Ns
Sesso	51,4% (F)	51,3% (F)	
Età media \pm DS	42,4 \pm 21,1	42,3 \pm 20,7	Ns

Fig 1:

Comparison between whole population and the sample of people whose data were collected in central database (according to age)

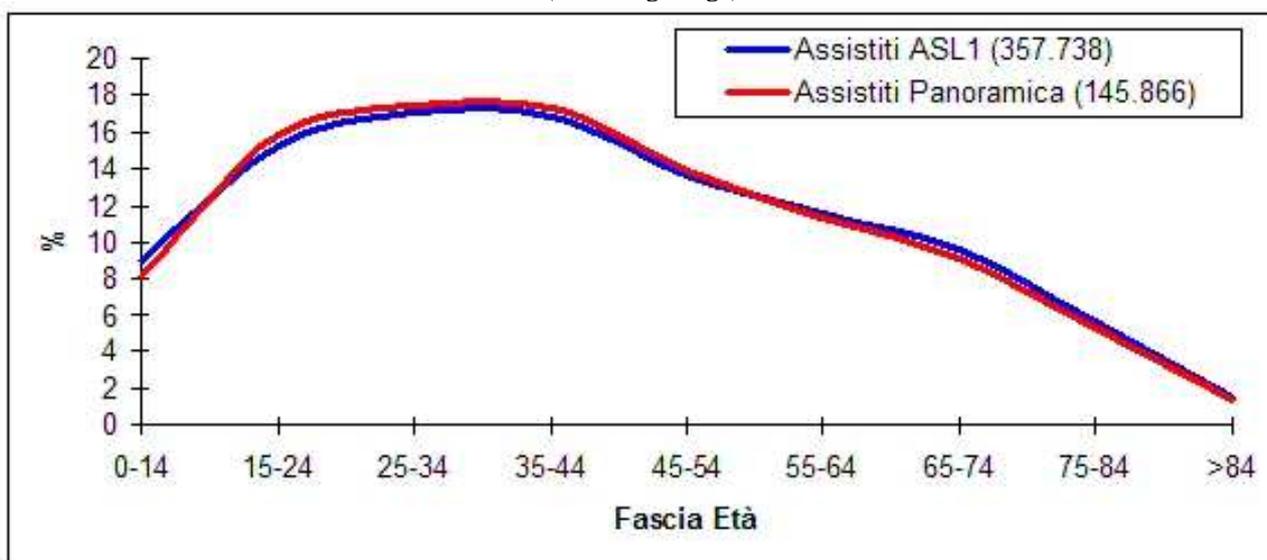


Fig 2

Comparison between whole population and the sample of people whose data were collected in central database (according to sex)

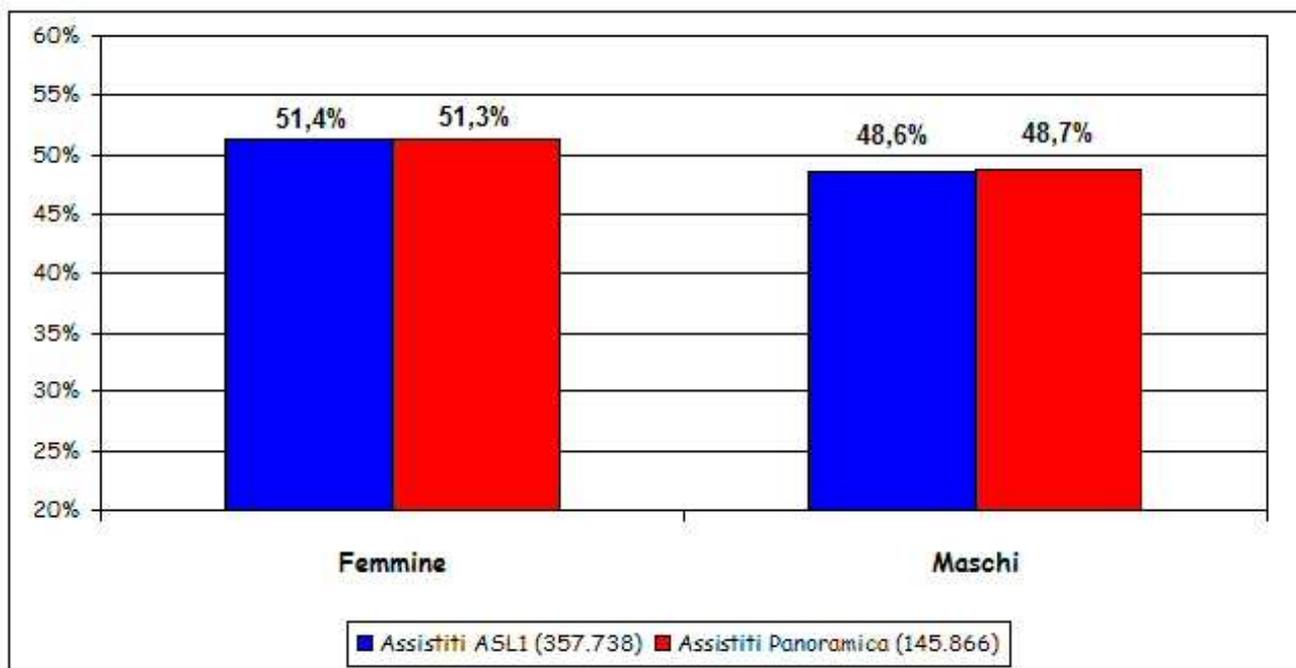


Fig 3

Pharmacological classes used for patients suffering from hypertension; absolute frequency of utilization

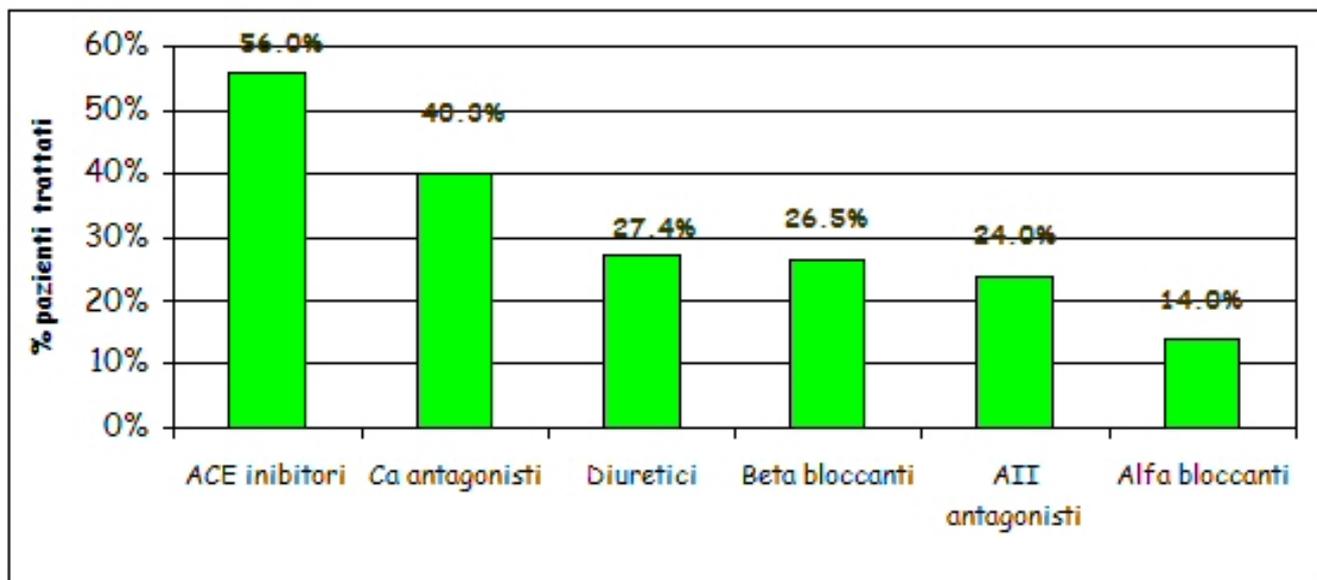
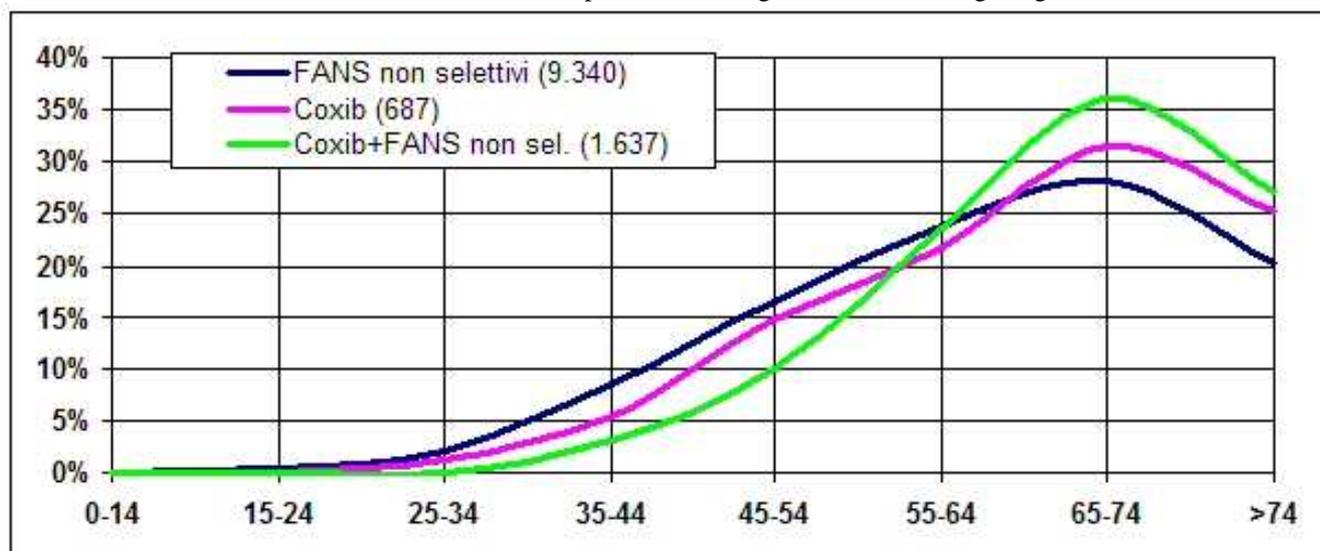


Fig 4
NSAID and Coxib utilization in patients suffering from OA according to age



Tab 2
intention to treat for Osteoarthritis

Molecola (n=213)	N	%
Nimesulide	12.200	34,8%
Ketoprofene	4.315	12,3%
Diclofenac	3.394	9,7%
Celecoxib	2.386	6,8%
Rofecoxib	2.181	6,2%
Piroxicam	2.124	6,1%
Ketorolac Trometamina	1.390	4,0%
Meloxicam	723	2,1%
Tenoxicam	646	1,8%
Nimesulide Betaciclodestrina	637	1,8%
Ibuprofene	631	1,8%
Piroxicam/Betaciclodestrina	590	1,7%
Naproxene	554	1,6%
Altro	3.326	2,3%
Totale	35.097	100,0%

Tab 3

Gastric protection in patients suffering from OA

Gastroprotettore	FANS non selettivi +gastroprotettori (2.048)		COXIB+GP (166)		FANS non sel +COXIB+GP (538)		Totale FANS+GP (2.752)	
	N pz	%	N pz	%	N pz	%	N pz	%
Antiacidi	1.148	56,1%	79	47,6%	293	54,5%	1.520	55,2%
Inibitori PP	677	33,1%	76	45,8%	212	39,4%	965	35,1%
Anti H2	278	13,6%	17	10,2%	75	13,9%	370	13,4%
Misoprostolo	68	3,3%	5	3,0%	26	4,8%	99	3,6%

Tab 4

Measures of prevalence for patients treated with antihypertensive drugs for hypertension problems

Pazienti con	N°	% sul tot assistiti
diagnosi di ipertensione	27.997	19,2
<i>trattati con antiipertensivi (98,8%)</i>	<i>27.652</i>	<i>19,0</i>
<i>nuovi casi di ipertensione</i>	<i>4.697</i>	<i>3,2</i>
Prescrizioni	N°	% sul tot prescr.
antiipertensivi nei pazienti ipertesi	300.552	27,4

Tab 5

Some data of co-morbidity of patients suffering from hypertension treated in 2002 with antihypertension drugs;

	Femmine (60,5%)	Maschi (39,5%)	Totale
Pazienti ipertesi trattati N°	16.717	10.935	27.652
Età (anni)	65,9 ± 12,5	63,5 ± 12,8	64,9 ± 12,7
<i>Diabete</i>	18,2%	15,5%	4740 (17,1%)
<i>Dislipidemia</i>	12,6%	15,5%	3805 (13,8%)
<i>Scompenso Cardiaco</i>	8,4%	8,0%	2269 (8,2%)
<i>IMA</i>	0,4%	1,5%	240 (0,9%)
<i>Cardiopatia ischemica</i>	11,3%	16,1%	3640 (13,2%)
<i>Asma/BPCO</i>	10,0%	11,3%	2906 (10,5%)
<i>Bronchite cronica</i>	9,7%	14,2%	3185 (11,5%)

Fig 5

Distribution of patients affected by heart failure according to sex and age

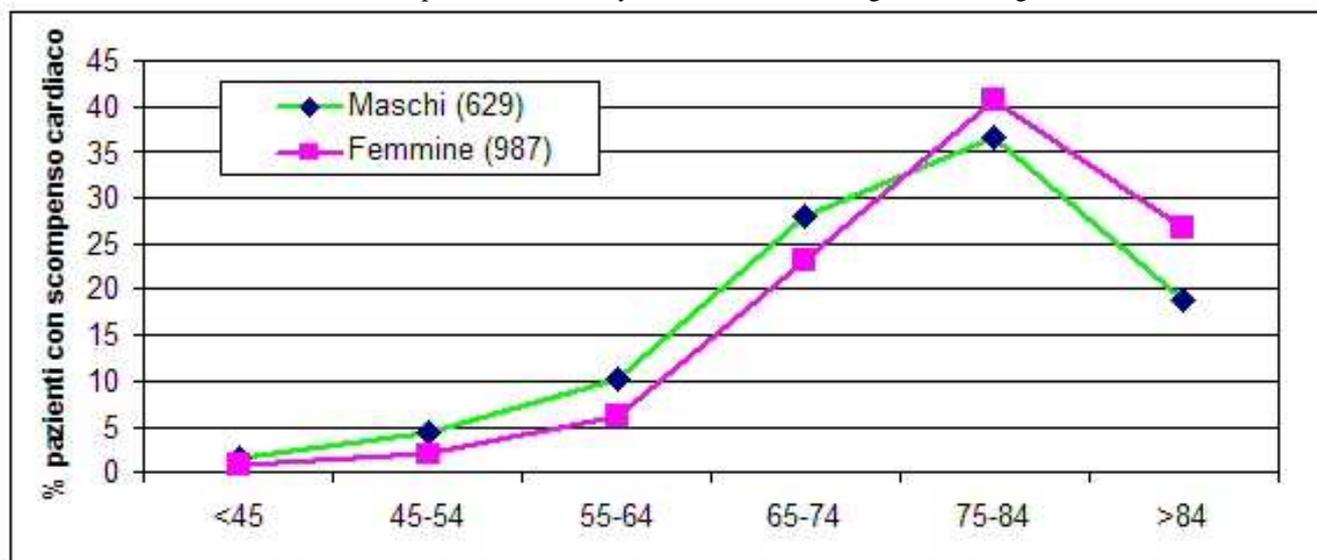
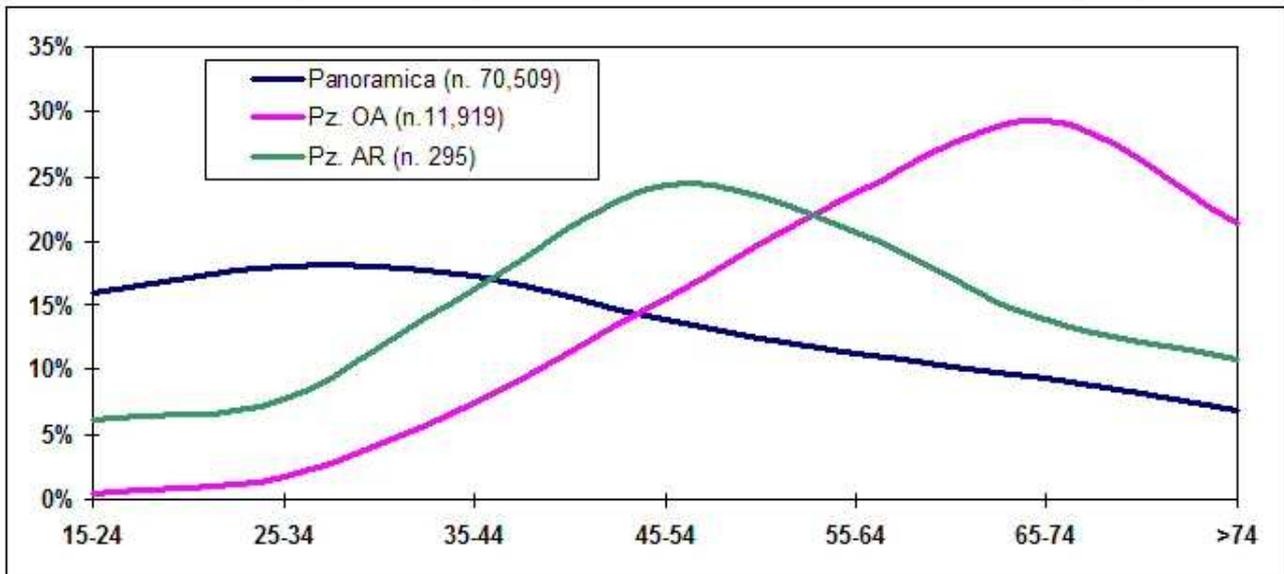


Fig 6

Distribution of patients suffering from Arthritis Rheumatoid and Osteoarthritis according to age



Tab 6

Comparison in the course of time between antibiotics mainly prescribed to treat cystitis by doctors associated to TDCP during the years 2001/2002

Principio attivo	I trimestre 2001		I trimestre 2002		Δ %
	N prescr. (40 mol.)	%	N prescr. (37 mol.)	%	
Fosfomicina	579	30,7%	573	29,0%	-1,6%
Ciprofloxacina	294	15,6%	391	19,8%	4,2%
Norfloxacina	227	12,0%	192	9,7%	-2,3%
Acido Pipemidico	170	9,0%	173	8,8%	-0,2%
Levofloxacina	145	7,7%	163	8,3%	0,6%
Trimetoprim/Sulfametox.	96	5,1%	144	7,3%	2,2%
Lomefloxacina	93	4,9%	103	5,2%	0,3%
Pefloxacina	59	3,1%	45	2,3%	-0,8%
Gentamicina	47	2,5%	37	1,9%	-0,6%
Altro	178	9,4%	152	7,7%	
Totale	1888	100,0%	1973	100,0%	

Tab 7

Comparison in the course of time between drugs used by GPs associated to TDCP pharyngitis.
Amoxicillina indicated as first choice in treatment.

Principio attivo	Ser 2001- feb 2002		Ser 2002- feb 2003		Δ%
Amoxicillina	2129	26,3%	2867	34,7%	+8,3%
Amoxicillina + Acido clavulanico	1221	15,1%	1207	14,6%	-0,5%
Cefixima	733	9,1%	619	7,5%	-1,6%
Claritromicina	701	8,7%	685	8,3%	-0,4%
Azitromicina	544	6,7%	502	6,1%	-0,7%
Bacampicillina	450	5,6%	377	4,6%	-1,0%
Rokitamicina	224	2,8%	48	0,6%	-2,2%
Ampicillina	219	2,7%	294	3,6%	+0,8%
Roxitromicina	219	2,7%	111	1,3%	-1,4%
Cefprozil	184	2,3%	134	1,6%	-0,7%
Lincomicina	177	2,2%	134	1,6%	-0,6%
Sulfametoxazolo + Trimetoprim	143	1,8%	119	1,4%	-0,3%
Cefaclor	141	1,7%	171	2,1%	+0,3%
Ampicillina + Sulbactam	136	1,7%	123	1,5%	-0,2%
Ceftibuten	123	1,5%	95	1,1%	-0,4%
Cefuroxima axetil	116	1,4%	143	1,7%	+0,3%
Eritromicina etilsuccinato	102	1,3%	124	1,5%	+0,2%
Altro	523	6,5%	497	6,0%	
Totale	8.085	100,0%	8.270	100,0%	

Tab 8

Comparison in the course of time between medicines used by GPs associated to TDCP medium-acute otitis.

Principio attivo	I trimestre 2001		I trimestre 2002		Δ %
	N prescr. (39 mol.)	%	N pres cr. (39 mol)	%	
Amoxicillina/Acido Clavulanico	65	11,8%	113	14,9%	3,1%
Azitromicina	50	9,1%	41	5,4%	-3,7%
Claritromicina	47	8,5%	58	7,7%	-0,9%
Amoxicillina	46	8,4%	116	15,3%	7,0%
Cefixima	45	8,2%	35	4,6%	-3,6%
Ceftibuten	44	8,0%	55	7,3%	-0,7%
Lincomicina	36	6,5%	36	4,8%	-1,8%
Cefprozil	32	5,8%	27	3,6%	-2,2%
Cefuroxima	25	4,5%	18	2,4%	-2,2%
Levofloxacina	15	2,7%	31	4,1%	1,4%
Ciprofloxacina	15	2,7%	20	2,6%	-0,1%
Cefonicid	15	2,7%	8	1,1%	-1,7%
Ampicillina/Sulbactam	12	2,2%	21	2,8%	0,6%

Tab 9

Comparison between prescriptions to treat pharyngitis prescribed by doctors associated to TDCP and not (Sept.2001-Febr.2002)

	<i>Medici non aderenti alle LG</i>	<i>Medici aderenti alle LG</i>
N° MMG	50	59
Età media±DS	49,7±4,7	48,6±2,9
Prescrizioni per faringotonsillite	10.012	9.664
Prescrizioni di antibiotici	8.617	8.085
Prescrizioni antibiotici/p z	1,35	1,28
Pazienti con faringotonsillite	6.679	6.851
Età media±DS	38,0±22,7	37,4±19,3
Pazienti con antibiotici	6.395	6.296
Femmine (%)	3.532 (52,9)	3.812 (55,6)
Età media±DS	39,3±22,6	38,4±19,4

Confronto di spesa pro capite

	Medici non aderenti ai PDTA	Medici aderenti Ai PDTA	Δ%
Spesa antibiotici	€ 21,11	€ 18,38	-12,3

