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## Editorial

### Rimini: Proud to be Italians By Mario Baruchello

The National Meeting of "Research in General Practice" took place in Rimini on October 5<sup>th</sup> and 6<sup>th</sup>. It was the result of an initiative shared with the Emilia Romagna region General Practice School and organized by SIMG and Health Search where over 450 general practitioners actively participated.

Franco Del Zotti and I organized an entire session together with Paul Wallace of the London University and in this issue you will find the significant outcomes. The Scientific Committee's activity has been complicated yet thrilling. There was a careful selection of the numerous studies all authors presented, and the committee chose the ones that were to be set out by means of verbal notice or posters and the ones that were to be included in the [www.simg.it](http://www.simg.it) website.

Together with Fabio Samani and Massimo Bevilacqua we defined the standards of scientific accuracy and this allowed us to classify the activities on the basis of innovation, coherence between method and conclusions, social effects, patient extent, epidemiological characteristics (observational studies, case control...), managerial data and organizational repercussions.

The research project in the World Wide Web - Netaudit - was officially launched.

Many colleagues brought important results obtained in Italy.

The adopted approach consisted in brief introductions followed by tutorial evaluations of our methods, thus achieving by way of all the questions that came from the people present, a strong integration of great impact and success, as in the past we observed to a minor degree during the meetings in Verona.

In my opening speech, I highlighted how research in general practice in Italy is reaching satisfying levels compared to the European standards with wide-ranging projects, how Italian research is starting to circulate on the international official press and how at last, top

down initiatives of organized groups (see the nets by SIMG...), are finally becoming tangible, bottoming up single general practitioners or independent associations (such as Netaudit where we can be read a research on diabetics).

We are not even close to the English experience, where 84% of the GPs have taken part to research and audit activities, at least 9% has published on authoritative magazines, 6% has raised funds, 3% attended specific training courses directed towards research / Br J Gen Pract 2000; 50: 387-9

But we can proudly say that we have presented clinical studies having the following characteristics:

- They are oriented on patients with relevant outcomes at a clinical level
- They refer to common problems in general practice
- They supply results intended to modify medical practice since we can immediately transfer all data regarding each participant

(Ebell MH. Finding POEMs in the medical literature J Fam Pract 1999;48:350-5)

These are the principles we hope will continue inspiring our QQ journal, which from this issue avails of Enzo Brizio's experience.

At this point, we would like to stop a minute for all the victims of terrorism and violence that are causing us deep wounds in the whole world; we will never forget that our work is trying to build a community with no hindrance, made of men who are rich in compassion and science, united by the only ambition of acquiring and enlightening all towards true knowledge and its applications.

Alain De Benoist in 1997 said something so true: "Research implies life-force, memory, intelligence, imagination, emotion and sharing "

Best wishes to all our  
readers for a Happy New  
Year 2002!

# Research in general practice in Italy – (reflections of an international observer)

By Paul Wallace

I have been following with interest and enthusiasm the development of the QQ since its inception some years ago, and I have been honoured to be included in the Editorial Board as one of your International Collaborators. In the UK, I work as a general practitioner in a busy group practice in London, where we look after 10,000 patients. Also work as an academic, and as Professor of Primary Health Care, I have responsibility for both research and teaching activity in a University department which includes more than 120 members of staff. Since September 2001, I have had the privilege to be undertaking a nine month sabbatical leave placement with WHO in Rome. Throughout my career, I have had a strong interest in the development of academic general practice not only in the UK but also internationally and I have been able to pursue this both through the European General Practice Research Workshop (EGPRW), of which I am a past Chairman, and through the European Society of General Practice and Family Medicine, WONCA Region Europe (ESGP/FM), of which I am a founder member. For personal reasons, I have had a special interest in the development of General Practice in Italy, and I have been delighted to have had the opportunity to participate in initiatives designed to promote research in this important and exciting field. For this reason I was very pleased to have the opportunity to take part in the Research Meeting which was held together with SIMG in Rimini last month, and to be offered the chance to facilitate the poster and discussion sessions and to give one of the keynote plenary addresses.

What struck me most forcibly during the course of the meeting was both the level of enthusiasm and energy of the participants, and the quality and volume of general practice research which was being carried out, often through the efforts of small groups of individuals without any external funding or real institutional support. It was clear that the existence of the QQ initiatives including the *Bollettino* and the *Netaudit* have contributed to highly effective networking. *Netaudit* seems to have been particularly effective in encouraging the exchange of both research ideas and actual audit data, and I was impressed at the amount of valuable research which has been carried out in this way. This initiative is highly original, and I would strongly support its further development. There was a wealth of research projects on a wide range of subjects, all of which seemed to have high levels of relevance to

every day general practice. One of the great advantages of research which is led by general practitioners rather than by hospital specialists or epidemiologists is that the research questions are much more likely to relate to the every day work of primary care professionals and the needs of their patients. In my view, that is one of the most important reasons for encouraging the training and support of general practitioners in research and other academic activity.

I was impressed by all of the research activity, but I was concerned at the continuing lack of infrastructure to support general practitioners and other primary health care professionals wishing to undertake research and other academic work. Italy is one of the few countries in Europe where there is little or no establishment of academic general practice within the Universities. Despite a number of small scale initiatives which I have been told about, it seems that most people in the field believe that this situation is unlikely to change in the foreseeable future. And while I was delighted to see the real involvement of SIMG in promoting research in general practice through its sponsorship of the Rimini meeting, I was left with real feelings of uncertainty about the motives for this. It seemed to me that the involvement of SIMG (and possibly some of the participants) might have been less to do with the promotion of research as reflective practice and a means to contribute to the overall understanding of our discipline, than with the perception of potential substantial reward from involvement in research planned by the pharmaceutical industry. Although there is nothing wrong with this (indeed I welcome the new opportunities which legislative changes have given to Italian GPs to participate in this kind of work), it nonetheless should not be the main thrust of research and academic activity, which need to concentrate on those questions (many of which do not relate to pharmacotherapy) which are of key concern to the profession and the patients whom we serve.

There can be no simple solutions to the evidently complex problems facing the development of academic general practice in Italy. But perhaps the most important single contribution could be made by harnessing and co-ordinating the efforts of the many different Italian groups involved not only in audit and research but also in continuing medical education and vocational training. In many countries in Europe, North America and other parts of the world, co-ordination and quality assurance of these activities is undertaken through the combined efforts of a national College of General Practitioners and a number of University Departments of General Practice. In each country, the responsibilities are distributed slightly differently, but the overall effect is the same: it ensures the development and maintenance of appropriate frameworks for these important tasks, at the same time providing the necessary institutional support to the general practitioners who become involved in the academic work. It also provides the means to attract

funding support from both public and private sources and to channel this effectively into supporting an agenda of academic activity which reflects the needs and wishes of general practice, rather than only those of government and industry. It will not be easy to establish such a collaborative model in Italy, but I know that my European colleagues in the European Society of General Practice and Family Medicine, WONCA Region Europe (ESGP/FM), and the network organizations responsible for research, teaching and quality assurance (EGPRW, EURACT and EQUIP) will be happy to support any efforts towards such collaboration. And it seems clear to me that until this can be achieved, the large number enthusiastic general practice researchers in Italy, many of whom participated in the Rimini conference, will continue to feel frustrated in their efforts to push forward the frontiers of knowledge in our important discipline.

**Paul Wallace**

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**Audit**

**“Smoking data” in the patient record – A graphic instrument: A cigarette-traffic light**

**Pizzillo C. (Avellino), Laringe M. (Napoli), Tarallo N. (Salerno), Del Zotti F. and Franchini C.A. (Verona)**  
 General Practitioners (GPs) in 4 Provinces: AV, NA, SA, VR

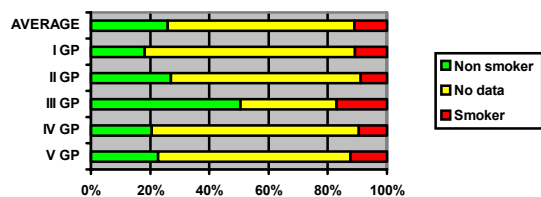
One of the leading variables in patient records is recording data regarding cigarette smoking. We were aware of the fact that this extra-clinical data was not regularly collected so we tried to develop in SQL language, strings that would cross-question our software’s database (millewin), in order to evaluate if the field had been filled out at least once or not, and if it had, what was the last recorded value (smoker; non smoker). We therefore decided to use a feedback image capable of making us immediately understand the position of each single GP in the group, also capable of estimating the entire group average: it’s a horizontal histogram that we called a “*Cigarette shaped traffic light*”. The green filter area represents the percentage of non smoking patients, the yellow area represents the percentage of patients of whom we have non data in the patient records, and the “glowing” red area represents the percentage of smoking patients.

**Results**

There are 7619 filed patients in the millewin database of 5 GPs

Smoker ?	Number and %
Non-smoker (green)	1979 (26%)
No data (yellow)	4793 (62,9%)
Smoker (red)	847 (11,1%)

“*Cigarette shaped traffic light*” showing the amount of Smokers, Non smokers and “No data available” of 5 GPs



**Conclusions**

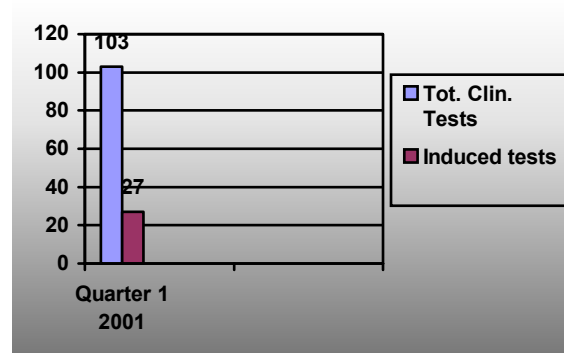
In order to analyse this small Audit regarding smoking habits, we should assume as a touchstone some of the authoritative national and international data furnished by publications that recently appeared on "Epidemiologia e Prevenzione" (March -April 2001) from La Vecchia: 30% Male Smokers (MS) and 18% Female Smokers (FS) in northern regions; similar figures for central regions; and 35% MS and 10-12% FS in southern regions (source: Pagano R, La Vecchia C, Decarli A, Tumori, 1995). In 1998, US statistical data presents 24% smokers among the adult population (26% MS and 22% FS).

In our study the percentage of smokers is inferior, 11%. This is easily understood if you examine the extension/percentage of the area containing no data: the yellow area (which shows an average of 62,9%). If we work hard to trim down the yellow area, we will be able to reach significant averages. The great extent of our yellow area is mainly due to the difficulty of GPs, who frequently work in an “opportunistic manner”, of becoming methodical with regard to epidemiological variables such as smoking habits, weight control, but it is also due to the difficulty of “maintaining” a well-organized database (there are many patients who have passed away or who have moved and are still in the database). It was interesting enough to say that by comparing our “traffic lights”, we easily saw how one of the GPs (the IIIrd GP) had a significantly inferior yellow area respect to the other GPs. This GP referred that he had been using “signals” in his PC for months in order to remember to fill out that area, by means of a procedural strategy involving his secretary, combined with a simultaneous mini-counselling.

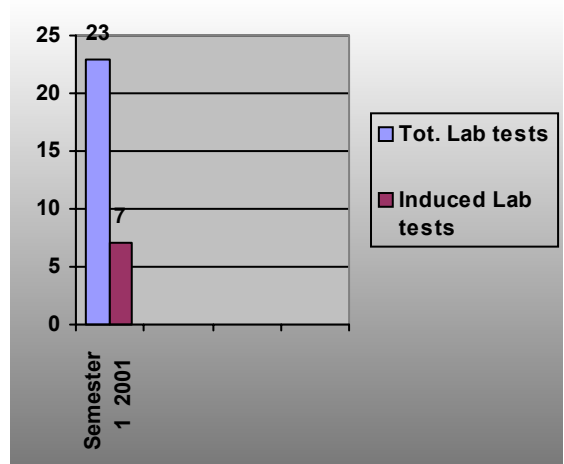
Concluding, this “cigarette - traffic light” can immediately furnish a series of motivations: a) each MMG has the idea of how the smoking data is being filled out in his database, which can give a feedback on the overall quality of the Database; b) as a result, it’s

obvious that the GP's area of responsibility does not only concern the range of existing smokers, but also the great amount of potential smokers hidden in the yellow area. In point of fact, the "area of responsibility" concerning "smoking data recording" in our database, represents the sum between the red and yellow area which is equal to 73%; c) assisted by the audit -histogram mentioned above, the GP can identify the name of all his smoking patients in order to plan ad hoc interventions; d) in group medicine or in a public health institution, the cigarette-traffic light can become an excellent way of motivating colleagues towards a "prevention competition" against smoke.

<b>Total Clinical Tests</b>	<b>103.510.739</b>	<b>100%</b>
Total Induced Clinical Tests	27.304.419	26%



Total Laboratory tests	23.615.339	100%
Total Induced Laboratory tests	7.017.719	30%



# Research

## A Study on the Amount of induced prescriptions for Clinical tests and Hospitalisations of an MG Doctor in the period from 01/01/2001 to 07/20/2001.

Dr. Pietro Quattrocchi Cortelona PV

The target of this study was to evaluate, throughout the given period, the overall prescriptions which could be considered as induced costs. We took into consideration only Clinical test prescriptions to simplify the correct presentation. We used a Millewin software which allowed to input a specific field we named *memo*.

We obtained the TOTAL number of prescribed Clinical tests and all the INDUCED prescriptions from the database.

We divided the clinical tests by groups (i.e. Laboratory, X-rays, NMR, CAT, V visits, ULTRASOUND SCANS, etc...)

Then, we evaluated with particular attention all ordinary Hospitalisations and Hospitalisations in Day Hospital.

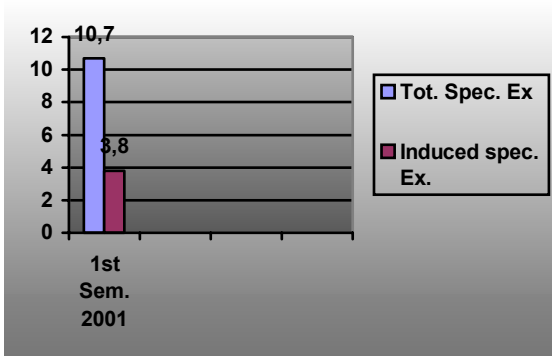
In the following Tables and Figures you will see a detailed analysis.

### Detailed analysis of the Instrumental tests

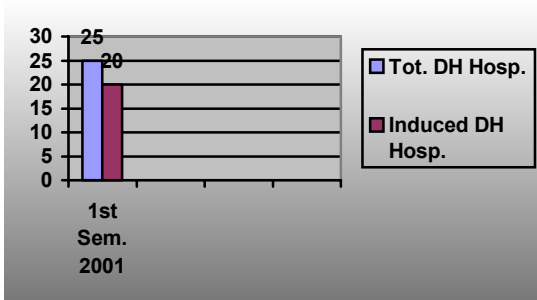
I) X-Rays		
Total X-rays	13.366.500	100%
Induced X-rays	1.875.500	13%
II) Ultrasound Scans		
Total Ultrasound Scans	6.733.500	100%
Induced Ultrasound Scans	1.471.000	22%
III) CAT		
Total CAT	9.292.500	100%
Induced CAT	2.911.000	32%
IV) NMR		
Total NMR	3.099.000	100%
Induced NMR	1.768.000	57%



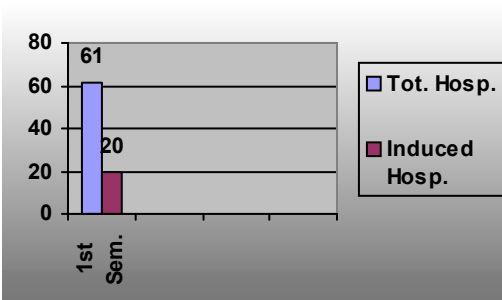
Total specialist's examinations	10.741.400	100%
Induced specialist's examinations	3.820.900	36%



Total Hospitalisations in Day Hospital	N° 25	100%
Induced Hospitalisations in Day Hospital	N° 20	80%



Total Hospitalisations	N° 61	100%
Induced Hospitalisations	N° 20	33%



**Comments and Conclusions.** After having completed these Tables and Figures we can formulate a few theories.

First of all, MGs are not so unprepared as some want them to seem, they perfectly know what they are doing and how they do it. By observing the various tables, it is apparent that approximately 30% of the total costs should not be ascribed directly to MGs, principally for what concerns the most expensive examinations such as CATs and NMRs.

With regards to ordinary and DH hospitalisations, we can deduce that there is a regular, pressing requirement for hospitalisations and mainly for DH hospitalisations, which are not always used appropriately by public hospitals and primarily by private institutions that work with public health entities.

This study wants to be a simple evaluation of the work others ask us to do and which to some extent, is forced on us.

Sooner or later, with the computerised systems we already own, we could perhaps achieve an improved review of this case and possibly also incorporate drug prescriptions with no difficulty.

## Audit

### Type II OBESE Diabetic patients and the use of Metformin - Descriptive analysis of 374 Obese Diabetic patients of 23 GPs

Del Zotti <sup>1</sup> F. (VR), Augruso A <sup>1</sup> (CZ), Battain M <sup>1</sup> (TO), Falasca P <sup>2</sup> (RA)<sup>2</sup>, Merola G. <sup>1</sup> (PD) and GPs of the Netaudit List (See complete list at the bottom)  
 Authors<sup>1</sup> = GP; Author<sup>2</sup> = Hospital of Ravenna- Epi-Info Italia

**BACKGROUND** - Obese diabetic patients have elevated risks and represent a particular subgroup of patients for whom we need to investigate appropriate clinical and relational strategies.

Furthermore, new studies witness the importance of using metformin in obese patients. The results of the "death-rate" outcome (see *the bibliography at points 1-3*) whether they were cardiovascular or total, are remarkable and are independent from the reduction of glycaemia values (it acts on the optimisation of the Insulin function).

**Objectives and Methods** - GPs used a retrospective method to analyse all the clinical records of their type II diabetic obese patients (BMI >29.9) during a period of 12 months (March 31, 2000 and March 31, 2001); where diabetes had been diagnosed at least 3 months before.

**INCLUSION CRITERIA** - First of all, ALL type II diabetic patients having a BMI > 29.9, where diabetes had been diagnosed at least 3 months before, were counted. For each one of these patients we filled out a Form that we found in the EPIDATA software, which considered variables such as Weight, Glycaemia >150 (Indication to Metformin use criteria), Glycated Haemoglobin and type of therapy. Furthermore, we evaluated the rate of contraindications for Metformin

use, following a Bailey et al. (NEJM, 1996) study, and of the type of Therapy and Dosage of Metformin during the 12 months that were considered (March 31, 2000 and March 31, 2001).

We selected a 30 or over BMI value for two reasons: a) to analyse an unquestionable Obesity; b) to reduce the number of patients for each GP to analyse, in order also to be faithful to the Netaudit slogan (“a research for GPs only in less than 3 hours”).

### Number and Characteristics of the Participating GPs

23 GPs that assist 33592 patients, belonging to the Netaudit group, participated in this research. Each GP participated with an average of 1460.5 patients.

### Number and Characteristics of patients assisted by the GPs

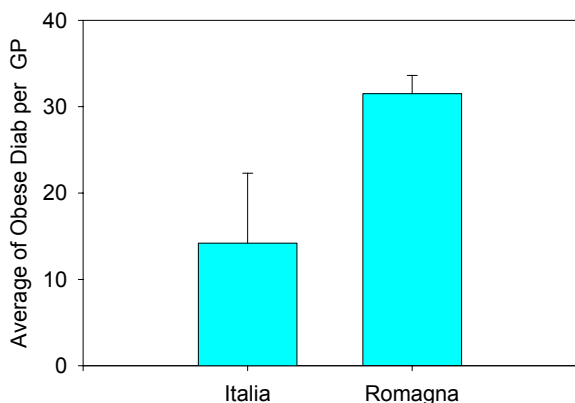
The GPs assist 1192 diabetic patients, with an average of 51,8 diabetics per GP (SD 13,2; range: 27-77; Coefficient of varia.25%). Gender and Age of the obese diabetic patients: 178 (47,9%) Male, 196 (52%) Female, Average Age: 65 years (the median is also 65) with a 31-93 range.

Out of 1192 diabetic patients, the openly obese diabetics (BMI≥30) were 374 (31,3%), with a significant difference among GPs and a great GP range (2-33; Coefficient of Variation of 58%)

This range has been explained well in **Figure 1**.

**Figure 1**

Average of obese diabetics: Romagna region and Italy



As you will notice, the average between Italy’s diabetic obese patients and the average in a specific region which is well known as “hedonistic”, the Romagna region (with the well known Riminis area), is quite different per single GP ( $p < 0,001$ ), data that is also confirmed by a test with 2 proportions which prove the relation between the two groups of patients: the obese diabetics and the overall diabetic patients assisted by each GP in Romagna and in the rest of Italy ( $p < 0,001$  with a confidence interval that shows a difference going from 9% to 25%)

### Weight before Therapy and Present weight

In 269/378 patients, we had recorded the weight before Therapy (Average: 91,7) and the present weight by the end of the therapy period (Average: 88,2). We carried out a Student’s T-Test for one-sample problems:  $p < 0,001$  and the test showed a *confidence interval* (95%) of the difference (weight loss) in kilos that goes from 2.6 to 4.3 kilos. This encouraging data illustrates how in a large amount of cases, we probably had a weight modification due to better food control and/or to the education of the GPs.

### Indications

Indications for Metformin use are tied to obesity (this is the inclusion criteria) and to a blood sugar count above 150. In this group of GPs, a large number of GPs recorded in clinical records at least one blood sugar count above 150 before or during the therapy. We still have to improve the recording rate in the glycaemia “field”: 24 patients do not even have one glycaemia sampling before or during the therapy.

### Contraindications for Metformin use

Only 41 cases (11%) among the obese diabetic patients had contraindications for metformin use: 9,2 % kidney problems with high creatinine levels (according to Bayley: males with creatinine equal or higher than 1,5; females with creatinine equal or higher than 1,4), liver, cardiac or respiratory failure; less than 2% of alcoholism or cases suffering from metabolic failure. The Audit was also useful to correct our behaviour in those rare cases where Metformin was administered in presence of a contraindication (13/378).

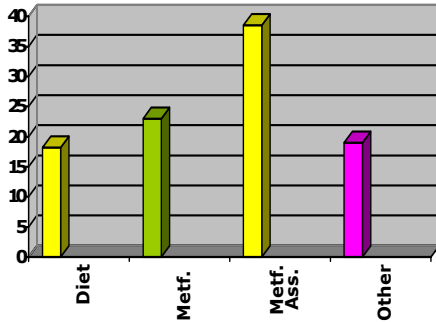
### Type of Therapy and Metformin use

In Table 1 and Figure 2 you can observe the frequency of the various types of therapy.

**Table 1**

Value	Frequency
Diet Only	68 (18,2%)
METF Only.	86 (23%)
Associated to Metf	144 (38,5%)
Other prescription drugs	71 (19%)
Unknown	5 (1,3%)

**Figure 2: Types of therapy in Obese Diabetic Patients**



### Metformin Dosages

In 233/374 cases we included unmistakable data regarding Metformin dosages. In 223 cases: 51(22%) were taking less than 1000 milligrams of metformin; 153 (65,6%) were taking from 1000 to 1500 mg.; 29 (12,4%) were taking over 1500 mg.

In 37 patients with glycated haemoglobin higher than 8, we noticed that the dosage of at least 1000 Mg was present in 26 cases (70%), 22 of these were taking less than 1500 Mg. and only 4 cases >1500 Mg.

### Conclusions

Our Audit “shows” the secreted weight of our diabetic patients. In an era in which we have sophisticated diagnostic and therapeutic technologies, the patients and their GPs risk not seeing such macroscopic data as weight and eating habits. Numerous GPs who were involved in this audit, discovered that because of the high distribution of obesity among their diabetic patients, there was a need for more sophisticated relational approaches. This prevents us from taking for granted that diabetic patients who have accepted chronic drug therapy are also able to accept small changes in diet management and physical activity. The evaluation of a “curious” regional data (FIGURE 1) reminds that we need to make a socio-cultural contextualization effort in our “technical” work, as a recent and important study underlines, regarding the difficulties in individual diet changes mainly in two ethnic groups (Vietnamese and people from Bangladesh) where there still is the habit of eating community meals (8; 9).

The audit also demonstrates that the GPs belonging to the Netaudit group must take advantage of this *baseline* to change drug prescriptions in this special group of high-risk patients, adjusting as extensively as possible to the Evidences, which show that Metformin has lately gained space. As a matter of fact, the colours in FIGURE 2 put in evidence a series of elements that can be discussed:

A) How much the statement of the GPs and/or of the patient “Diet Only” corresponds to truth for those patients who are obese and how much it’s an alibi for

us, so we don’t have to deal with the difficult decisive relation GP- Patient regarding diets?

B) The use of Metformin is advisable, but in mono-therapies it is still insufficient (23%), especially after finding out that contraindications for Metformin use are present in only 11% of the cases

C) How the frequent use of “Associated with Metformin” hides the possibility of underestimating the dosages of Metformin? Truly this is a possibility which is put in evidence by other considerations: 22% of the patients undergoing treatment with Metformin uses less than 1000 mg and only 12% is treated at the full dosage (>1500). At the beginning of the study, the GPs declared as a minimum standard, the presence at least 30% patients undergoing a mono-therapy with metformin and at least 60-70% of these patients had to be using metformin alone or associated to other medications. Our results certainly diverge from the minimum standards, mostly concerning mono-therapies indicating the need of giving greater attention to some of the prescription characteristics (documentary evidence in the clinical records of the Glycaemia values and a rigorous evaluation of the contraindications and of the appropriate dosages). At the same time, they represent great pragmatic stimuli towards a better EBM management that is more concerned towards obese diabetic patients.

**Bibliography:** **1)** UKPDS Lancet, 1998; 352:837; **2)** UKPDS Lancet, 1998; 352: 854; **3)** UKPDS Bmj, 1998; 317:703; **4)** Linee Guida per il MMG - LG diabete, a cura di Sandro Giroto et al - Editor: Azienda USL Verona, 2000; **5)** BNF 2001; **6)** Bailey CJ NEJM 334:574-579; **7)** Culhane K et al: What listening to patients can teach us..*WJM*;2001; 175:313; **8)** Mull D et al:Vietnamese diabetic patients and their physicians: what ethnography can teach us.*wjm* 2001 175: 307-311; **9)** Greenhalgh T, Helman C, Chowdhury AC. Health beliefs and folk models of diabetes in British Bangladeshis: a qualitative study. *BMJ* 1998;316: 978 - 983

Complete LIST of the GPs in the Netaudit group ([www.netauditcjb.net](http://www.netauditcjb.net)) authors of the Study. For more information regarding Netaudit contact dr Del Zotti ([delzotti@libero.it](mailto:delzotti@libero.it)) or dr Brizio ([enzo.brizio@libero.it](mailto:enzo.brizio@libero.it))

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