Repeat prescriptions. A study in general practice in the Netherlands.
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Summary

Chapter 1.
In chapter one the introduction and a short description of our study are to be found. Unease about the handling of the requests for repeats and doubts about the necessity to honour a requested repeat formed the inducement to this study. Besides, the disappearance of the dispensing part of our practice had strongly diminished the overview of the drugs the patients used.

Chapters 2. and 3.
The literature study is described in two articles. Chapter two gives the literature until 1992; that formed the basis for our study. Chapter three gives an updating until the end of 1996. The literature taught that repeat prescriptions without direct doctor-patient contact comprised a third of GP prescriptions in the Netherlands in 1983-1990. In the UK the percentages varied from approximately 20 percent around 1971 to more than 75 percent in 1993. Supplying repeat prescriptions seemed efficient for patients as well as for GPs, but a number of potential disadvantages were attached to it, among them over-prescribing and less control. These disadvantages could be quite well prevented by using a good registration system. To that purpose various registers had been developed. The majority of the references on repeat prescriptions were of British origin, but the last couple of years in our country too, more publications about this subject have been published. Outside the UK and the Netherlands we came upon only two Spanish publications.

Chapter 4.
Chapter four describes the repeats from the data of the National Study. This in addition to the scarce Dutch publications. This way we could calculate that in the Netherlands in 1987-1988 the part of repeat prescriptions amounted to 42 percent of the total number of prescriptions. For male and female the percentage of repeats was about the same. Patients in the age group of 15 - 25 years obtained their prescriptions as a repeat in 25 percent, patients 75 years of age and older in 61 percent. The majority of repeats were prescribed for hypertension, followed at some distance by insomnia, stress and contraceptives. The chance of obtaining a repeat prescription appeared to depend on practice related factors. In duo-practices and health-centres the chance of getting a repeat was often smaller by half than when the GP worked solo. In municipal conurbations with over 50,000 inhabitants we sometimes found 40 percent fewer repeats than in places with less than 30,000 inhabitants. The presence of a physician's dispensary enlarged the chance of receiving a repeat prescription by 1.8 times compared to a non-dispensing practice. Practicing as a GP for longer time (over 5 years) increased the chance of receiving a repeat by 2.6 times, compared to a GP practice of less than 5 years. Longer practice experience (over 10 years) hardly changed this figure at all.

Chapter 5.
The study in seven non-dispensing GP practices in Oud-Beijerland (1993) is described in
chapter five. In this study all repeats of the GPs in a small town were marked with a coloured stamp in the practices. The information given by those marks was gathered and worked out in the pharmacies. It was calculated that repeat prescriptions entailed 33 percent of the GPs' prescribing. Most repeats (75%) were intended for continuous use. The highest percentages of repeats were found for contraceptives (54%), psycholeptics (51%) and cardinals (47%). The lowest percentage of repeat prescriptions was for antibiotics (10%). The percentage of repeats appeared to vary widely, not only by drug group, but also by GP practice it varied from 23 to 48 percent. However, we failed to identify a consistent repeating pattern among GPs. The amount of prescribed medicine, expressed in DDDs (defined daily doses) per repeat was often somewhat larger than those per face-to-face prescription. This varied by drug group and might run to well over a quarter.

In the practices concerned, almost all requests for repeat prescriptions were made by telephone to the practice assistant 1. She made the repeats ready. In some practices the GP had only to sign the repeats at the end of the morning; in other practices he had to copy the requested drug on a partly filled in prescription. This was done according to the notes made by the assistant, in most cases without the patient's medical file. Not much time was allotted for this. Consistent supervision of the indication or of the necessity for the prescription was lacking.

chapter 6.

During the study all prescriptions were reviewed for shortcomings in one of the two pharmacies in Oud-Beijerland. In chapter six these shortcomings are described. They were found in 21 percent of the repeat prescriptions and in 12 percent of the prescriptions given during a direct doctor-patient contact. Here too, the diversity across practices proved to be considerable. The percentage of repeats with shortcomings varied by practice from 8.3 to 37.6 percent. Further investigation proved that 32 percent of repeats written by the practice assistant showed shortcomings, but the percentage for repeats written by the GP himself was 14%. This large difference was mainly brought about by ambiguous, illegible, or missing indications for usage. This type of error accounted for almost 60 percent of the shortcomings with repeat prescriptions. Another error, which was found more often with repeats than with face-to-face prescriptions (three times more often) was exceeding the allowed dose per prescription. The probability of errors in name and of pharmacological errors only was half as great for repeats as for face-to-face prescriptions. Only 0.4 percent of the repeats appeared to give rise for a pharmacological problem.

chapter 7.

With the help of a short study afterwards we could establish that the pharmacists' way of assessing agreed sufficiently to compare the results. Concerning pharmacological errors the pharmacists' opinion was compared to the outcome of the computer system they (both) used. The computer system warned far more often for a possible shortcoming than the pharmacists could establish. This part of the study is described in chapter seven.

1 in the Netherlands a practice assistant does the work of a practice nurse combined with receptionist tasks.
chapter 8.

To answer the new questions that arose from our quantitative investigations, in-depth interviews with the GPs involved were held in 1995. A report of these is given in chapter eight. It was settled that the GPs thought quite differently about drug therapy. A few indicated that they had a special repeat protocol for some drugs. In that respect it is not surprising that the percentage of repeats varied widely per practice. However, the interviews yielded no explanation for the wide variation in the number of errors. Sometime the GPs saw no problems with the way in which repeats were handled in their practices. Moreover they misjudged the errors that were found in the repeat prescriptions signed and/or written by them. It seemed as though many GPs were not much interested in repeat prescribing. No explicit agreements were made with the practice assistant concerning repeat prescriptions. Furthermore, not all GPs seemed to acknowledge the importance of the assistant's role in dealing with the requests for a repeat prescription.

It was remarkable that some GPs were of the opinion that the pharmacist played no special role in the process of repeat prescribing. Yet the GPs entrusted him with a major part of the supervising.

chapter 9.

In chapter nine some aspects of the outcome of our study are discussed. The proportion of repeats in Oud-Beijerland seemed to agree with earlier research in our country. Data from the National Study and from the UK showed higher values. Maybe the latter comes from the higher level of computerization of the handling of repeats in the UK and coherent, with a somewhat different definition of a repeat.

In our study the practice assistant played an important role in the handling of requests for repeats. This may be caused by the way repeats were requested for. Almost all requests were done by telephone. We did not expect that on beforehand. For that reason we could not investigate the influence of the way requests were done on the number of repeats or on the shortcomings that could be found.

We do not want to generalize the results of our study in Oud-Beijerland. But some weaknesses in the handling of repeats have been made visible. In the assessing of the quality of repeats other aspects, not studied by us, also play a role. We mention the indication for the repeat prescription. Too often a repeat was made without looking in the medical file of the patient.

In an good system for repeats there is cooperation between GP en pharmacist. The tasks of the practice assistant should be properly delegated. A good (computer) system can be a great help. However, just possessing such a system is not enough. In order to ensure that GPs (can) make optimum use of such a system, more attention should be given to this subject.