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Lydia Marahrens, Focke Ziemssen, Andreas Fritsche, Tjalf Ziemssen, Raimar Kern, Peter Martus, Daniel Roeck

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## Erstveröffentlichung in / First published in:

*Ophthalmologica. 2016, 236 (3), S. 154 – 158 [Zugriff am: 19.05.2020]. Karger. ISSN 1423-0267.* DOI: <u>https://doi.org/10.1159/000450708</u>

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https://nbn-resolving.org/urn:nbn:de:bsz:14-qucosa2-706096

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## **Original Paper**

Ophthalmologica

Ophthalmologica 2016;236:154–158 DOI: 10.1159/000450708 Received: June 5, 2016 Accepted after revision: September 2, 2016 Published online: October 5, 2016

# Limited Time from the Diabetes Patients' Perspective: Need for Conversation with the Eye Specialist

Lydia Marahrens<sup>a</sup> Focke Ziemssen<sup>a</sup> Andreas Fritsche<sup>b</sup> Tjalf Ziemssen<sup>d</sup> Raimar Kern<sup>d</sup> Peter Martus<sup>c</sup> Daniel Roeck<sup>a</sup>

<sup>a</sup>Center for Ophthalmology, Eberhard Karl University of Tuebingen, <sup>b</sup>Division of Endocrinology, Diabetology, Vascular Disease, Nephrology and Clinical Chemistry, Department of Internal Medicine, and <sup>c</sup>Institute of Clinical Epidemiology and Applied Biostatistics, University of Tuebingen, Tuebingen, and <sup>d</sup>Autonomic and Neuroendocrinological Laboratory Dresden, Department of Neurology, University Hospital Carl Gustav Carus at the Dresden University of Technology, Dresden, Germany

#### **Key Words**

 $\label{eq:constraint} Diabetic \ retinopathy \cdot Physician \ time \cdot Counselling \cdot Patient \\ preferences$ 

#### Abstract

Purpose: Facing the lack of time, busy retina consultants should be aware of how the patients would prefer that time is spent and whether they wish the specialist to talk more at the expense of other medical activities. Methods: 810 persons with diabetes were asked to divide the time of 10 min between examination, consultation and treatment when envisioning a real-life scenario of diabetic retinopathy (NCT02311504). Results: With the increasing duration of diabetes, patients wanted significantly more time for diagnostics (p = 0.028), while age was found to be associated with less time for treatment (p = 0.009). Female subjects tended to prefer only little more time for talking (p = 0.051) in comparison with males, who slightly favored therapy (p = 0.025). **Conclusions:** The large majority recognized the need for diagnostics in their allocation of time. If individual patients are confronted with the health care perspective of time constraints, this might improve the understanding of prioritization. © 2016 S. Karger AG, Basel

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E-Mail karger@karger.com www.karger.com/oph

#### Introduction

Being an ophthalmologist has always been a busy job. A major challenge of medical retina services worldwide is to accommodate all patients and increase capacity [1]. Due to a very high demand for services, patients suffer from increasing waiting times and delays in seeing the ophthalmologist before receiving intravitreal injections. However, there has been, in general, little research into physician time as a resource [2].

Working time of specialists is valuable and considerably contributes to health care costs [3]. Shared time for communication is the key element in patient-doctor relationships; in particular, it is important for the participatory decision-making style regarding treatment [4]. Sometimes the time physicians spend in face-to-face contact with patients gathering information, developing a relationship and maintaining an individual knowledge base seems like an eternity. Further factors make the situation worse: increasing administrative requirements for health care delivery encroach on the time directly spent with patients. Sociodemographic changes and an – actually pleasing – increase in new treatment options pose a challenge for retina consultants [5]. Therefore, delegating tasks

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such as intravitreal injections to other medical coworkers has been initiated in some countries [6].

Time is always finite [7]. Therefore, additional tasks will lead to a decline in the amount of time spent with patients or colleagues. It has been observed that physicians have acquired strategies to manage their interview time by interrupting patients quickly and often [8]. For ophthalmology, glaucoma specialists were found to spend an average of 8.0 min in the room during office hours. However, during the mean 5.8 min of conversation, 70% of words were spoken by the physician [9]. The availability of additional health information on the Internet suggests that the direction of delivering information might have changed [10].

Recent study results have further increased the need for detailed explanations of which therapeutic modality to use in the individual scenarios [11]. In addition, when treating diabetic retinopathy (DR), it is not the real but the perceived duration that determines satisfaction (if this exceeds the patient's expectation of time needed) [12]. Faced with such time constraints, the ophthalmologist should know what the patient wants and consider the importance of time management.

#### **Subjects and Methods**

This prospective cross-sectional study was conducted in adults attending three secondary diabetes care centers between January 1 and May 1, 2014. The DiabCheck<sup>OCTplus</sup> trial adhered to the tenets of the Declaration of Helsinki (NCT02311504). Eligibility criteria included age greater than 18 years and the proven medical diagnosis of diabetes (medical record). Individuals were excluded if mental disability, dementia and/or poor German language skills were noted.

Of the 831 individuals eligible for the study, 2.53% (n = 21) declined to participate due to time constraints or personal reasons. Patients did not receive compensation, but they did receive fundus imaging for their voluntary participation in the study.

A hypothetical scenario of limited time, i.e. a visit to the eye specialist lasting 10 min, was explained to all subjects with a confirmed diagnosis of diabetes. The patients had to allocate the time spent on three medical activities. Data regarding the factors impacting on the time distribution were collected. Detailed information about the patient's health status, medical condition, diagnosis, and treatment as well as information about diabetes, such as type, duration and laboratory test results, were extracted from the patient's electronic medical record.

For the continuous variable, significant differences were evaluated using the nonparametric Kruskal-Wallis test. Confidence intervals of 95% (95% CI) were calculated. p < 0.05 was defined as significant. The statistical analyses were performed using SPSS 22 (IBM).



**Fig. 1.** Linear regression of the mean time allocation is shown for the three activities. The brighter area around the lines indicates the adjusted 95% CI.

#### Results

Only 14 of 810 patients did not succeed in selecting the time spent on the three medical activities in such a manner that the sum did not equal 10 min. The remaining 796 subjects with diabetes chose 3.4 min (median: 3 min, 95% CI: 3.4–3.6 min) for consultation, 4.1 min (median 4, 95% CI: 4.0–4.2 min) for examination, and 2.4 min (median 3, 95% CI: 2.3–2.4 min) for treatment.

With the increasing duration of diabetes, the time intended for examination also increased (5 s/10 years of disease duration, p = 0.028), while no differences were seen for consultancy and treatment (fig. 1). Correspondingly, the higher the age of the patients, the shorter the time contingents reserved for treatment (p = 0.009; fig. 2a).

Men slightly preferred more time for treatment than women (men 95% CI: 2.4–2.6 min vs. women 95% CI: 2.2–2.4 min, p = 0.025; fig. 2b). In contrast, female subjects indicated a higher time required for consultancy (men 95% CI: 3.3–3.5 min vs. women 95% CI: 3.5–3.7 min, p = 0.051).

The presence of DR did not seem to have any impact: a descriptive analysis showed no difference in the sub-

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Time allocated

for counselling

Color version available online

Fig. 2. Mean time for counselling, examination and treatment depending on age (a) or gender (b). The whiskers extend to the

95% CIs of the values within the respective

group of patients with documented DR (n = 64). When comparing the subjects with good metabolic control (HbA<sub>1c</sub>  $\leq$ 7.5%, n = 468) with the remaining subjects (HbA<sub>1c</sub> > 7.5%), there was no difference regarding the request for counselling (3.4 vs. 3.6 min). However, those subjects assigned more time for examination (4.3 vs. 4.0 min, p = 0.004) and less for treatment (2.3 vs. 2.5 min, p = 0.056). There was no difference regardless of the type of diabetes (type 1/type 2: 3.4/3.5 min for consultation, 4.2/3.5 min for examination, and 2.4/2.4 min for treatment).

## Discussion

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40-49

n = 116

Time allocated

for counselling

Q

n = 447 n = 363

Gender

50-59

n = 161

Age groups

Time allocated

for treatment

30-39

n = 69

Time allocated

for examination

5

4

2

1

0

5

4

2

1

0

b

Time (min) 3

а

18-29

n = 37

0

Q

n = 447 n = 363

Time allocated

for examination

Time (min) 3

> In our survey, the patients allocated most of the time to diagnostic activity, not to talking. Disease duration had an impact on the selected time for examinations. It seemed to be feasible to include patients in the time management discussion and promote an understanding for the time constraints.

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n = 447 n = 363

There is a huge gap in the literature regarding the time consumption of retinal services [13]. It has to be taken into account that the three activities are hard to define by the affected subjects. The contingent of 10 min remains

group.

fictitious for a retina clinic, but might reflect the experience subjects had had with eye specialists. The least time duration was chosen for therapy, which leads to the speculation as to whether this 'art' has lost its glamour in times of a very technical administration of drugs or laser shots. Technical resources remain crucial in the delivery of health care.

Major advances are frequent in diagnostic testing and therapeutics. Information transfer technology has made physicians' ability to access information about these advances easier and contributes to patients being more aware of changes in many aspects of health care. At the same time, physicians may be called on to limit the utilization of health care resources to services that are judged to be medically necessary.

Talking remains important for controlling patients' expectations and achieving satisfaction. In the interdisciplinary field of diabetes, patients represent not only the persons affected, but messengers for the primary care physician or diabetes specialist. The physicians' level of satisfaction depends on their perception of the amount of time available and on time pressure [14]. Physician satisfaction then again contributes to patient satisfaction. A higher quality of care, such as communication patterns, explaining care, attention to psychosocial aspects and prescription rates, was found to correlate with physician satisfaction [15]. In addition, the risk of malpractice seems to be associated with visit length [16]. The subjective impression of a lack of information is a strong driving force of malpractice claims. Quality is in danger if time is curtailed in the wrong places [17].

Possible solutions include the delegation of certain tasks to nonphysician providers, but should not ignore the patient-physician relationship [4]. The team can support the ophthalmologist by reinforcing the messages. More conscious or rigorous time management might give more flexibility, but also enhance the physician's sense of autonomy, very likely improving motivation and satisfaction. Specific strategies such as appointment slots, blocking time for more demanding patients, monitoring communication time and no-show rates might reduce the pressure [18–20].

Many patients may not be aware of the actual time needed for certain medical activities. The analysis did not include any assessment of time really spent on the participants in their own personal experience. However, there was no account of the level of education and knowledge of disease (both assessed within the survey and analyzed). The constraint of 10 min means that the answering to the three activities was not independent of each another. In real-world conditions, the time spent on the various medical activities varies from person to person depending on the stage and type of disease: while subjects without DR need extensive information about risk factors and effective prevention, affected persons might need more counselling regarding the therapeutic alternatives available. Another limitation of the study was the recruitment in specialized diabetes care centers. Those patients might have severer diabetes, but also receive better care than patients attending general practitioners. As with other interview-based studies, there may be a selection bias in spite of the low rejection rate.

In particular, in chronic diseases, communication is an effective weapon to overcome hurdles and nonadherence [21]. It is not clear why the addition of personalized education during retinal ophthalmologic visits did not lead to a better metabolic control during the first year (protocol M, DRCR.net), although an extensive collection of leaflets and an individualized risk assessment were provided to patients [22]. Empowerment and activation will remain a key step in overcoming clinical inertia and improving the systemic management [23]. The quality of communication, being precise and reflecting individual demands, can compensate for the time constraints [24]. At least in comparison to other specialties, the ophthalmologists proved to communicate very well, e.g. by showing respect [25]. How to use the limited time most efficiently must be addressed.

#### Conclusions

Patients appreciate the impact of diagnostic activities. Being aware of the patients' perspectives, the ophthalmologist might have less fear of incorporating them into time management, in order to encourage an active and selfdetermined setting [26–28]. Good communication skills include a patient-centered approach with active listening, building up an emotional relationship, considering patient attribution and establishing agreement on goals. The patient-ophthalmologist relationship is not only a question of the amount, but the provided quality of faceto-face time [29].

#### **Disclosure Statement**

This study was supported by Novartis (Switzerland). The funders had no role in the design and conduct of the study; the collection, management, analysis, and interpretation of the data; the preparation, review, or approval of the manuscript; or the decision to submit the manuscript for publication. The following potential conflicts of interest are disclosed: Focke Ziemssen: Alcon (R), Alimera (C), Allergan (C, R), Bayer Healthcare (C, R), Biogen (R), Novartis (C, R); Raimar Kern: Bayer-Healthcare (R), Biogen Idec (R), Genzyme (R), Merck Serono (R), Novartis (R), Teva (R); Tjalf Ziemssen: Almirall (R), Bayer Healthcare (C, R), Biogen Idec (C,

R), Genzyme:Code (R), GSK:Code (R), Sanofi-Aventis (R), Merck Serono (R), MSD (R), Novartis:Code (C, R), Teva:Code (C, R), Deutsche Diabetes Stiftung (F), Hertie Foundation (F), Robert Pfleger Foundation (F), Roland Ernst Foundation (F); Daniel Roeck: Novartis (F).

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