# Provision of services in primary care for type 2 diabetes: A qualitative study with patients, GPs and nurses

**Running title: Primary care diabetes: patient and provider views**

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**Abstract**

**Background:** There is little evidence on the impact of national pressures on primary care provision for type 2 diabetes from the perspectives of patients and their GPs and nurses.

**Aim:** To explore experiences of primary care provision for people with type 2 diabetes and their respective GPs and nurses.

**Design and setting:** A qualitative interview study in the East of England

**Methods:** Semi-structured interviews withpeople who have type 2 diabetes (n=24) along with their respective GPs and nurses (n=15). Purposive sampling was used to select for heterogeneity in glycaemic control and previous healthcare experiences. Interviews were audio-recorded and analysed thematically. The consolidated criteria for reporting qualitative research were followed.

**Results:** We identified a changing landscape of diabetes provision owing to burgeoning pressures that were presented repeatedly. Patient participants wanted GP-delivered care with continuity. They saw GPs as experts best placed to support them in managing diabetes, but were increasingly receiving nurse-led care. Nurses reported providing most of the in-person care, while GPs remained accountable but increasingly distanced from face-to-face diabetes provision. A reluctant acknowledgement surfaced amongst GPs, nurses and their patients that only minimum care standards could be maintained, with aspirations for high quality provision unlikely to be met.

**Conclusion:** Type 2 diabetes is a tracer condition that reflects many aspects of primary care. Efforts to manage pressures have not been perceived favourably, despite some benefits. Reframing expectations of care, by communicating solutions to both patients and providers so that they are understood, managed and realistic, may be one way forward.

**Key words:** type 2 diabetes, primary care, provision, services, GP, nurses

**How this fits in?**

* There is limited evidence on the impact of national pressures on primary care provision for type 2 diabetes from the perspectives of patients and their respective GPs and nurses
* This interview study revealed increasingly unmet expectations between what patients and practitioners aspire towards, and what the service delivers
* Urgent solutions are needed to reframe expectations, improve staff morale, and encourage more meaningful multidisciplinary task delegation of diabetes care

**Introduction**

There are an estimated 4 million people living with type 2 diabetes in the UK and these numbers are predicted to rise to 4.6 million (9.5% of the population) by 2030. [1] The rapidly growing prevalence of the disease imposes a large financial burden, with a cost to the National Health Service (NHS) of £14 billion a year.[2] Most diabetes care occurs in general practice, where an average 20 million diabetes contacts occur annually. [3] This includes, but is not limited to, diabetes annual reviews, personalised care plans, treatment intensification, monitoring for Quality and Outcome Framework indicators (QOF) indicators and the day to day clinical and social care of diabetes-related complications. [4,5] Most people with diabetes will also have multiple morbidities that will require additional primary care services.[6] National guidelines and QOF indicators require at least annual monitoring and reporting on metabolic markers and both microvascular and macrovascular complications. Universal targets are no longer recommended for achieving tight diabetes control, and there is greater emphasis on more individualised care to avoid overtreatment. However, GP practices were still required to keep a register of people with multimorbidities where HbA1c levels are ≤ 59 mmol/mol (adequate control) or if HbA1c levels are ≤ 64 mmol/mol (poor control) or if HbA1c levels are ≤ 74 mmol/mol (very poor control) in the preceding 12 months. These specific glycaemic registers will soon be adjusted to reflect frailty levels amongst people with type 2 diabetes.

Driven by rising workloads and declining resources, the current strain on primary care services has been described extensively. [7] Labelled a ‘national crisis’, there are major concerns for staff wellbeing, recruitment and retention, and the subsequent ability of primary care to provide acceptable quality of care. [3] The impact of these pressures on care provision for specific conditions, including diabetes, has received less attention. We are not aware of any previous studies that have captured patient experiences of primary care diabetes specific service provision in response to growing pressures.

Patient experiences are important; they provide in-depth and nuanced understanding of current services, as well as being a key component of healthcare quality. Positive patient experiences have been associated with improved safety, clinical effectiveness and health outcomes. [8–10] Patient experience has also been linked to improved doctor satisfaction and well-being.[11] There is a paucity of evidence examining patient experiences alongside those of their respective doctors and nurses. Understanding patient and provider experiences in parallel, within the context of current primary care resource constraints, may help to inform the provision of acceptable and achievable diabetes services. This study aimed to explore the perspectives of patients, their GPs, and practice nurses on the current provision of primary care for type 2 diabetes, with a particular focus on how services had changed for them over time.

**Methods**

Design

Semi‐structured qualitative interview study.

Setting This study was nested within the ten-year follow-up phase of the Anglo-Danish-Dutch Study of Intensive Treatment In People with Screen Detected Diabetes in Primary Care (ADDITION-Cambridge) trial. ADDITION-Cambridge is a cluster randomised controlled trial of a population-based screening for type 2 diabetes followed by intensive multifactorial treatment compared to routine care.[12] The trial was conducted in the East of England and recruited 867 people with type 2 diabetes in 49 general practices across urban, suburban and rural part. A detailed description of the trial has been reported elsewhere[13,14]

Recruitment and sampling of people with type 2 diabetes

All 867 ADDITION participants within the ten-year follow-up phase of the trial were eligible to participate. From these, we sampled purposively taking into account reported previous experience of primary care. Experience reports were completed by participants based on the Consultation and Relational Empathy (CARE) measure of holistic and patient-centred care at the one and ten year follow-up phase of the trial. [13,15] The CARE measure provides a numerical score of experience (from 10 to 50); we invited for interview in equal proportions participants who reported high (>45), moderate (35-45) and poor (<35) experiences. [12,15] Within these groups, participants were also sampled to include a range of glycaemic measures (at the ten-year follow-up phase of the trial); using categories of HbA1c level (≥ 8.5% (69.4 mmol/mol), 7.5% - 8.5% (58 – 69.4 mmol/mol) or ≤ 7.5% (58mmol/mol)).We did not separate participants by original trial group arms as we have previously reported there were no significant differences in CARE scores between groups, and the trial itself reported no significant reductions in the incidence of cardiovascular events and death. [13] We sent invitation letters to all sampled participants, with a study information leaflet, consent form and a pre-stamped return envelope. Non-response was followed up with a reminder letter three months later. Participants were offered an interview at a mutually convenient location or over the telephone, according to their preferences.

Recruitment and sampling of GPs and nurses

We sampled GPs and nurses from general practices with patient participants enrolled in the ADDITION-Cambridge trial who had also been recruited to this interview study; we tried to match GP/and or nurses from practices where patient participants had been recruited. We sent invitation letters to potential participants, with a study information leaflet and consent form. Non-response was followed up by an email reminder. Those who responded were offered an interview at a mutually convenient location, or over the telephone and were reimbursed for their time.

Data collection Interviews were carried out between August 2017 and August 2018. We used a semi-structured approach whereby a topic guide enabled similar areas to be covered across interviews, but interviewers were alert to the need for a flexible approach to ensure that any related subjects of importance could be raised (see Boxes 1 and 2). All interviews were audio-recorded (with consent), transcribed verbatim, and subsequently anonymised. A sample of transcripts was checked against the audio recording to ensure accuracy. Interviews were stopped once consensus has been reached amongst the study team that there were sufficient quality and depth of interview data to inform analysis, with regards to the aim of the study. [16] Interviews with people who had diabetes lasted between 45 - 60 minutes. GP and nurse interviews were between 16 - 30 minutes.

Data analysis

The analysis was inductive in line with qualitative principles and drew on thematic analysis approaches.[17,18] Following the initial three interviews, a first descriptive account of the data was generated and discussed within the research team and with participants to enable reflection on the topic guide and sampling strategy, prior to additional data collection. Close reading and re-reading of initial transcripts and discussion amongst the team generated a coding framework (refined as data collection progressed) that was used to code the remaining transcripts. Memos were used to help summarise and synthesise codes into themes, which brought related codes together. We paid particular attention to searching for alternative or outlying perspectives as our interpretation of the data progressed. At the end of the interviews, participants were sent a summary of analytical themes with the option to comment on or discuss these further. [19] QSR NVivo software was used to code, organise and manage the data. The COnsolidated criteria for REporting Qualitative research (COREQ) checklist was used to guide the reporting of findings.

Participants gave written informed consent to participate. The study was approved by the East of England - Cambridge South Research Ethics Committee Cambridgeshire (REC Number: 16/EE/0057). The ADDITION-Cambridge trial is registered as ISRCTN86769081.

**Results**

We interviewed 24 people with type 2 diabetes (11 female; 13 male), all of whom were diagnosed over ten years earlier (see Table 1). We additionally interviewed 9 nurses and 6 GPs (see Table 2), who were from the practices of patient participants. Of the interviews with patient participants, fourteen were carried out in their homes, and ten by phone; of the GP and nurse interviews, ten interviews were carried out at participant’s workplace, and five by phone.

**Summary of findings**

We identified a changing landscape of diabetes service provision in primary care owing to burgeoning pressures that were presented repeatedly by patients and their respective GPs and nurses. Patient participants wanted GP-delivered care with greater continuity. They saw GPs as experts best placed to support them in managing their condition, but were increasingly receiving nurse-led diabetes care. Nurses reported providing most of the in-person care, while GPs remained accountable but increasingly distanced from face-to-face provision. A reluctant acknowledgement also surfaced amongst providers and their patients that only minimum care standards could be maintained, with aspirations for high quality care provision unlikely to be met. Below, we consider each of these issues in more depth.

**What patients want: GP-delivered diabetes care**

Most patient participants gave broadly positive accounts of diabetes services in primary care. Long term relationships with GPs and interpersonal care were highly valued:

*“I like to see the doctor […] it’s just that you build up a rapport with the person over the years; you get to know them, you get to know how good they are […] that’s all one can ask.”*

*Respondent 1-3 (Male with HbA1c* > 8.5%)

Reflecting how patients particularly valued in-person and frequent contact with the GP, they repeatedly expressed the need for more GP consultations for their diabetes care. To them, the GP acted as a physical anchor, providing security and continuity from the time of new diagnosis throughout the long course of their diabetes.

*“I wish the doctors could see me more often.”*

*Respondent 1- 13 (Male with HbA1c< 7.5%)*

The need for GP-specific contact was expressed through common descriptions such as ‘he is all I need’ or ‘I have faith in him’. For some patients, the recently reduced interactions with the GP could lead to feelings of ‘abandonment’ and ‘neglect’, which became more apparent as the flurry of contact around a new diabetes diagnosis gave way to a more standardised schedule of review appointments:

*“My doctor is my support person. I only need my doctor, nothing else really.”*

*Respondent 1-17 (Male with HbA1c* > 8.5%)*;*

*“They see you a lot early you know but now I’m on my own you know, I mean abandoned but I don’t mean like a child, I mean like they don’t want to know me […] I would like to see them more.”*

*Respondent 1-19 (Male with HbA1c* 7.5% - 8.5% *) ;*

Older participants who had lived with diabetes for many years speculated that recent ‘disappointing’ experiences of care, with a loss of regular contact with their GPs, may be due to their increasing age or length of illness (see Box 3):

*“Once you turn 60 to 65, they want less to do with you, they just tell you over the phone or you ring up.”*

*Respondent 1-1 (Male with HbA1c > 8.5%)*

*“They don’t care about diabetes once you have had it for a bit. They used to call me more before.”*

*Respondent 1-6 (Female with HbA1c* 7.5% - 8.5%)

**What patients get: nurse-delivered but GP-led diabetes care**

Patients, nurses and GPs all acknowledged that in primary care it is the nurses who have most face to face diabetes patient contact. The nurses described their services as *‘limiting the burden on GPs by completing the necessary templates’* and by ‘*seeing most of the diabetes patients’.* The GPs did not regard the work undertaken by nurses as replacing that offered by GPs but suggested that these were *‘supplementary’* or *‘additional’* roles, although the relative contribution and work of GPs and nurses varied between practices.

*“I'm a nurse so most of it is done by us, so they come for their annual review and we adjust the medication up and down according to what the doctor has told us to do, we do the education of diet and exercise, we monitor the blood pressure, cholesterol, make sure they've done their urine samples. So, we'll see them annually unless we feel that things are not under control and then obviously, we make a judgement as to whether we see them three months or six monthly.”*

*Respondent 2-15 (Female, Nurse)*

*“The nurses do the pre-planning work with blood tests and pre-assessment, and all three of them do diabetes but none of them are specialist nurses in diabetes. I have to do a lot of the main work looking at the medication, looking to see if they need a GP appointment, see if they need a change in medication from that appointment. I do a sort of diabetic virtual clinic, so when we see results coming in that we know the person’s struggling, not getting the medications that we’re using.”*

*Respondent 2-11 (Male, GP)*

For patients, consultations with nurses were viewed as ‘preparation for seeing the GP’ or, more commonly, as ‘routinised’ or ‘checklist’ consultations following a strict schedule of review appointments, reflected in the passive language patients commonly used when describing such encounters:

*“Oh [the nurse] doesn’t bother talking to me about it and we don’t have a conversation like I do with my doctor. She just follows her script.”*

*Respondent 1-19 (Male with HbA1c* 7.5% - 8.5%);

*“I go twice a year and see the diabetic nurse, she only takes the blood, ticks all the boxes that need to have tested and includes the PSA at the same time, so that they get everything checked, take a urine sample and then, as soon as they come back from [hospital], which is usually about ten days, I’ve already made the appointment to go and see the doctor who can treat me properly and knows my diabetes.”*

*Respondent 1-11 (Male with HbA1 of* 7.5% - 8.5%)

As illustrated above, sharp distinctions were often drawn by patients between the diabetes care provided by GPs and nurses. GPs were portrayed as the ‘experts’, and patients assumed that consulting with them would mean better care. Patients did not express the same level of confidence in nurses and emphasised that ‘ultimate responsibility’ for their diabetes care rested with the GP:

*“I see the nurse mainly about my diabetes but it’s the doctors who are the professionals. If there are any questions about medicines or things, it’s the doctor really…we need to check with the doctor if she [nurse] tries to change things*.”

*Respondent 1-1 (Male with HbA1c* > 8.5%)

Like their patients, GPs viewed themselves as the experts who held clinical responsibility for decision making on diabetes care. Nurses, too, placed responsibility for diabetes care with the GP, whilst recognising that it was nurses who predominantly delivered face-to-face care:

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*“Yes, the nurse is doing the checks, you know, the foot check, and having the discussion with the patient in our practice […] it would appear to the patient that it is led by the nurse because the patient is having the direct contact with the nurse but it’s the GP that has to look through everything behind the scenes to instruct us.”*

*Respondent 2-7 (Female, Nurse)*

**How services are adapting: increasing pressures on care**

Patients’ narratives frequently recognised demands and growing pressures on services. Their accounts outlined “problems with the system” due to “insufficient NHS funding”, and suggested their diabetes care was more “rushed” due to decreased availability and regularity of in-person contact (see Box 4):

*“The doctor was rushing, he just didn’t want to know […] But it wasn’t like that before with him. So that was like the start of me losing confidence in the doctors now, you know because they can’t cope with how much he has to do.”*

*Respondent 1- 10 (Female with HbA1c* < 7.5%)*;*

GP and nurse accounts corroborate those of patients, also flagging concerns around time pressures and increasing diabetes workloads. They too expressed concerns about services reaching ‘’capacity’’. As a result, many had evolved coping strategies to deal with high numbers of patients and limited resources, commonly reducing the time made available to see diabetes patients in person (see illustrative case summary, Box 4):

*“Basically, because diabetes is an epidemic […] we’ve got to fit lots more patients into less time, because of the ageing population we’ve also got booming other chronic diseases as well, COPD, heart failure, so it’s just trying to manage the workload and patients’ expectations and keeping ourselves sane as well. It‘s not really working.”*

*Respondent 2- 3 (female GP)*

*“We don’t have the time to see them all the time so we see them a lot only when they are new.”*

*Respondent 2-7 (Female Nurse)*

**The impact: adequate but not outstanding care**

GPs repeatedly emphasised the ‘’impossibility’’ of delivering optimal diabetes care and suggested there was a growing acceptance of ‘good rather than excellent’ care. They explained that this was because of ‘’unmanageable’’ or ‘’unachievable workloads’’ and articulated the need for greater funding and workforce support. Their accounts suggest a demoralised workforce who describe themselves as ‘’uninspired’’ (see Box 5):

*“Like all surgeries it's not always possible to get the best control in our diabetes patients. We're always rammed for appointments anyway so we can’t even get them back so we have to just accept a good control rather than excellent control because we can’t actually see them again.”*

*Respondent 2- 3 (Female GP)*

*“We just tick the box quick to say that we are monitoring them. I don’t see them as I do a virtual clinic ahead of the nurse appointment. That’s OK, it’s enough but there is no chance to ask them more about what’s going on in life’’*

*Respondent 2-11 (Male, GP)*

**Discussion**

Summary of main findings

In this study we explored the experiences of people with type 2 diabetes and their respective primary care professionals, in receiving and providing services in response to current pressures. Respondents identified an enduring set of increasingly unmet expectations with greater nurse-led protocol driven care and less GP in-person provision. Accountability for disease management remained with GPs who are increasingly overstretched. Examples of patients feeling abandoned and doctors settling for lower care standards are particularly worrying, with potential consequences on the risk of diabetes complications and subsequent impact on patient services and costs.

Comparison to existing literature

In this study, we report increasing dissatisfaction arising from unmet patient, GP and nurse expectations of diabetes services. This is consistent with national trends in primary care, with the latest results from the British Social Attitudes survey reporting that patient satisfaction with GP services had dropped to 63%, the lowest level since the inception of the national survey in 1983. [20] This is concerning; health services that do not meet patient expectations result in lower ratings of trust, adherence, and poorer health outcomes, driving increasing burden on services and costs. [8,21]

From the patient perspective, it appears that some of this dissatisfaction stems from the delegation of GP tasks to multidisciplinary staff. This national strategy is aimed at managing primary care pressures arising, in part, from the growing prevalence of chronic disease and shortfalls in the GP workforce. [22,23] The impact of such delegation may be varied; systematic review evidence suggests that consultations with nurses can deliver equivalent health outcomes, and higher patient satisfaction, compared to those with GPs. [24] However, recent analysis of patient experience data from the national GP Patient Survey showed that patients who wished to see a GP, but instead saw a nurse, had lower levels of confidence and trust in the nurse, and poorer reported communication. [25] This reflects our findings, where many patients still perceived GPs as the only experts in diabetes care, whom they regretted not being able to see as often as they wished. The rapid pace of change in diabetes service delivery in order to manage demand may not have permitted opportunities to reframe patient expectations and bring them on board with current policy. Resolving this will continue to be problematic as the service moves towards more digital consultations and an expansion in the roles of non-medical practitioners as set out by the Governments long term plan.[23] Our findings suggest that as part of managing pressures on primary care, managing patient expectations and including them in the dialogue on national efforts to tackle primary care pressures is essential.

Co-creating a health service in which patients are involved with current strategies will need to be accompanied by equivalent efforts to bring GPs and nurses on board, despite the challenge of increasing workload pressures. To date, the UK has the lowest number of doctors and nurses per head of the population (one doctor for every 365 people) when compared to equivalent high-income countries. [26] Problems of recruitment and retention are well known. [27] GPs already have the lowest morale of all doctors, and 93% of 16 000 GPs in one survey reported that current workloads were negatively impacting clinical care.[3,28] We found poor staff morale and aspirations for only minimum clinical care standards for type 2 diabetes: this needs to be addressed urgently.

Strengths and limitations The inclusion of patients and their respective GPs and nurse participants is a strength of this study in allowing a complete perspective on the provision of diabetes services. Interviews enabled detailed probing and prompting to elicit views on the topic. Sampling of patients ensured heterogeneity in care experiences and disease severity, whilst providers represented different practices, professional backgrounds and levels of experiences. Most patient participants were white which reflects the local demographic of the area, but it meant that a detailed account of experiences from different minority ethnic groups was not possible. The study was also reliant on patient and HCP participants opting into interviews; this self-selection may influence findings as patient participants are likely to reflect more engaged service users, whilst providers reflected those who were motivated to find time to participate in an interview. All the included practices were research active and part of the larger ADDITION Trial which may also have influenced patient or practitioner experiences, and subsequent narratives that were provided. It is possible that our results may not reflect the full scope of diverse views from nurses, GPs and patients with diabetes, although we did look for alternative perspectives. Participants were interviewed both on the phone and in-person interviews. The content and quality of data may vary between these different interview modes. The provider interviews were relatively short in comparison to patient interviews. The duration was led by providers and longer, in-person interviews outside of the busy clinical setting may have provided more rich data collection.

Implications for research and practice

Type 2 diabetes is a tracer condition that reflects many aspects of primary care, and our findings are therefore likely to have wider implications. With rising pressures on service provision, patient, GP and nurse expectations of care increasingly remain unmet. Efforts to manage pressures in primary care have not been perceived favourably. One way forward is to reframe expectations of care, by communicating solutions to both patients and providers so that they are understood, managed and realistic. Meaningful delegation of accountability to multidisciplinary staff, and efforts to boost existing staff morale, also have an important part to play in delivering manageable yet impactful solutions.

**Ethical approval**: All participants provided written informed consent, and ethical approval was obtained (Eastern MREC, reference 02/5/54 and East of England - Cambridge South REC, reference 16/EE/0057. The ADDITION-Cambridge trial is registered as ISRCTN86769081.

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**Data availability:** The datasets generated and analysed during the current study are not publicly available due to the data containing information that could compromise research participant privacy/consent but may be available from the corresponding author on reasonable request

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**Author Contribution:** HDM contributed to the design of the study, wrote the analysis plan, conducted the analysis, drafted and revised the paper. JB contributed to the design of the study, supported analysis and revised to the paper. ALK contributed to the design of the study and revised the paper. SJG contributed to the design of the study and revised the paper. JB is guarantor.

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Box 1: Summary of initial topic guide used to aid questions during interviews with patients

* Introductions, explanations and consent
* Experience from diagnosis to present day – chronological sequence in own words
* Who looks after diabetes?
* How is diabetes care set up in locally?
* What has been helpful or unhelpful?
* What would you like to see in future diabetes care?
* Long term experiences
* Tell me about your experiences of diabetes care over time?
* What has changed?
* Any other topics or queries?
* Interview close

Box 2: Summary of initial topic guide used to aid questions during interviews with practitioners

* Introductions, explanations and consent
* Describe in your own words how diabetes care is set up locally
* Describe your last few diabetes consultations
* Barriers and facilitators to care
* Could you talk me through some examples of diabetes care that you feel went well?
* Why did they go well?
* What could be improved?
* What could be helpful in caring for diabetes patients in the community?
* What works well at present?
* Long term diabetes care delivery was explored
* Talk me through your experiences of caring for diabetes patients over this time?
* Could you describe any changes in diabetes care over this time?
* What would like you see done differently in diabetes care?
* What other support do you need in delivering diabetes care?
* Any other topics or queries?
* Interview close

Box 3: Patient aspirations for care

Participant 1-14 is a female aged 73 years with an HbA1c level < 7.5%. She has moved GP practices a few times since being diagnosed with type 2 diabetes 13 years ago. She described regular telephone and in-person consultations related to diabetes at least every 6 months. This used to include a 30 minutes consultation with the nurse for ‘*getting ready’* to see the GP including *‘all the foot tests and checks’*. This was followed immediately afterwards with a GP review *‘to make any changes and talk about my diabetes’*. Soon after diagnosis, she attended a ‘*diabetes class’* to support her with *‘eating the right things and shopping the right things’*. There were also peer-support meetings which she described as *‘helpful to see what everyone else is doing’* and was given *‘some books with recipes’* which she still uses after more than a decade although acknowledges that ‘*these might be out of date with the new stuff’.* More recently, she describes her experiences of diabetes services as *‘hit and miss’* as she has not seen a GP in two years. Most of her care is now delivered by nurses but she would prefer to see the GP although she feels that *‘he isn’t interested in me as I’m too old’.* She says; ‘*I look after my own diabetes’.* She explains that after the initial interest early during the disease, *‘they [GPs] just decided to leave me to it’.* She would like more *‘of the things that we had at the start’* and feels *‘forgotten because I am getting on in age’*.

Box 4: adapting to pressures on services

Participant 2-14 is a male GP. He has cared for patients with type 2 diabetes for 19 years at the same practice, where diabetes services are ‘*mainly nurse led’.* He explained that *‘historically’* he reviewed every diabetes patient in-person but as the population has grown, he has had to *‘let go’* and *‘make way’* for multidisciplinary staff although continues to have *‘oversight’*. The practice nurses and health care assistants review the diabetes patients and will *‘alert’* him if there is any ‘*complex patient who needs a GP input’.* This will often include discussions about medication changes or further referrals. He feels that these reviews still *‘take up too much time’* and is considering extra training for the practice nurses to *‘free-up’* his availability for other tasks. Recently, the GP has been trying out ‘*virtual clinics’* in which he reviews the records and blood results without the patient present and is able to electronically record a plan for the nurses to relay to the patients when they attend. The GP feels that this is probably the ‘*most efficient way of keeping an eye on the patients albeit unknown to them’.* He also explains that he has had to be flexible with new approaches to care otherwise he would *‘drown in chronic diseases’.* He further describes the increasing number of patients with type 2 diabetes as *‘’overwhelming’’* due to the *‘’associated never ending administrative and payment tasks’.*

Box 5: Adequate rather than outstanding care?

Respondent 2-14 is a male GP who has looked after patients with type 2 diabetes for eight years in two different GP practices. When asked about the local set up of diabetes care he began by explaining that ‘*there isn’t enough staff and not enough care’.* He suggested that his practice has a high proportion of patients with poorly controlled type 2 diabetes which he finds ‘*pretty much impossible to sort out’* due to the lack of resources and restrictions on his time. He explains that he does not have the ‘*ability to see everyone in detail’* describing himself as being ‘*stressed by the work’* and without much ‘*higher level support’*. He ‘*struggles to get all the QOF boxes ticked’* and this has meant reduced funding to his practice which further restricts resources. He finds the ‘*cycle rather exhausting’* and hopes that the ‘*government gets a grip’* with extra to support diabetes services.

**Table 1: Characteristics of patients with type 2 diabetes who were interviewed**

|  |  |  |
| --- | --- | --- |
| Participant characteristic | | Sample size (n=24) |
| Age | | 61(7) years \* |
| Sex | Male | 13 (54%) |
| Female | 11 (46%) |
| Ethnicity | White | 19 (79%) |
| Asian | 1 (4%) |
| Other | 4 (16%) |
| CARE Measure | High | 12 (50%) |
| Average | 6 (25%) |
| Poor | 6 (25%) |
| HbA1c group | >≥ 8.5% | 7 (29%) |
| 7.5% - 8.5% | 9 (38%) |
| ≤7.5% | 8 (33%) |

\*denotes mean (SD)

**Table 2: Characteristics of HCPs (GP and nurses) who were interviewed**

|  |  |  |
| --- | --- | --- |
| Participant characteristic | | Sample size (n=15) |
| Sex | Male | 5 (33%) |
| Female | 10 (67%) |
| Ethnicity | White | 10 (67%) |
| Asian | 2 (13%) |
| Other | 3 (20%) |
| Practitioner type | GP | 6 (40%) |
| Nurse | 9 (60%) |