General Practitioners, Dr C and Dr D

A Report by the

Health and Disability Commissioner

(Case 00HDC06972)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Parties involved

Mrs B (deceased)	Consumer
Mr A	Complainant
Dr C	Provider / General Practitioner
Dr D	Provider / General Practitioner
Dr E	Registrar at the Hospital
Ms F	Diabetes Nurse Specialist
Dr G	Diabetologist

Complaint

On 8 July 2000 the Commissioner received a complaint from Mr A about the services provided to his mother, the late Mrs B, by Dr C. The complaint was that:

- *Mrs B had a history of high cholesterol and diabetes, was overweight and had high blood pressure. Dr C did not do an ECG or prescribe any other investigations to rule out blockage of her coronary arteries. Mrs B died suddenly on 1 January 2000.*
- *In mid 1999 Mrs B complained of shortness of breath, tightness in her chest and indigestion type pains. In October 1999 Mrs B consulted Dr C with these symptoms and he knew she was taking Blackmores herbal digestive tablets. Dr C did not perform an ECG.*
- *If Dr C had referred Mrs B for cardiac investigation, the blockage of her coronary arteries may have been detected sooner and appropriate treatment initiated.*

An investigation was commenced on 21 August 2000. The investigation was extended to include Dr D on 17 January 2001.

Information reviewed

- Mrs B's general practitioner records
- Mrs B's records from the Clinic
- The Clinic's Diabetic Service policy
- Information from a diabetologist at the Clinic
- Report from an independent general practitioner, Dr Wendy Isbell

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Information gathered during investigation

Dr C had been Mrs B's general practitioner from at least 1983. Mrs B suffered multiple medical conditions including diabetes, hypertension, high cholesterol, varicose veins, eczema and asthma. Mrs B was also overweight and Dr C referred her to a dietician at a public hospital, who recommended that she "cut out sugar". At this time her weight was 105kgs.

Medical care 1995
Mrs B consulted Dr C on 17 May 1995. He recorded her blood pressure as 200/100 and blood glucose level as 18.5. He noted Mrs B's family history of diabetes, with her father and paternal uncle having had diabetes mellitus. Dr C diagnosed that Mrs B had diabetes mellitus and referred her to a Diabetic Advisory Service ('the Clinic') on 24 May 1995 for a review. On 18 May 1995 Mrs B's blood lipid levels were elevated (ideal levels shown in brackets): total cholesterol 6.4 (5), LDL 4.5 (3), total/HDL ratio 7.2 (4.5). An appointment at the Clinic was made for 24 June 1995 but Mrs B did not attend. The Clinic notified Dr C and another appointment was made for 3 July. On 26 June Dr C recorded Mrs B's weight at 94kgs and her blood pressure as 200/80. Mrs B was not taking anti-hypertensive medication. On 27 June Dr C received a dietician's assessment. The dietician advised Dr C that Mrs B was "following a sensible meal plan. Has reduced fat & sugar intake." Mrs B did not have a follow-up appointment with the dietician and was to arrange her own appointment when it was convenient.

In September 1995 Mrs B was experiencing visual disturbances. Dr C referred her to the Neurological Ward day stay clinic for assessment. Her blood pressure at that consultation was 180/80.

Medical care 1996
Initially Mrs B had blood glucose and fructosamine tests every two weeks. Dr C's first consultation with Mrs B in 1996 was on 18 February. Her blood sugar level, which had been elevated, was 8mmol (5). Mrs B had been prescribed glucose reducing medication and was taking Diamicron 80mgs a day. In a letter to Mrs B, dated 28 February 1996, Dr C informed her that it appeared her diabetes was being brought under control. He urged her to continue having blood glucose tests at the laboratory on a monthly basis "to ensure diabetic control". On 12 March 1996 Dr C saw Mrs B because she was suffering from diarrhoea and vomiting. He recorded her weight at 93kgs.

Dr C referred Mrs B to the Eye Clinic at the hospital and received their assessment report on 14 March advising that Mrs B should have repeat eye tests in six months. On 20 and 22 March Mrs B attended Dr C for an unrelated matter. She was seen by a locum doctor, who recorded her blood pressure as 160/80.

On 19 April 1996 Dr C examined Mrs B. She had a four-day history of ankle swelling but was otherwise well. Her blood pressure was 180/80. Dr C referred Mrs B to the Clinic for a complete review. She was admitted to another public hospital and remained overnight. The examining registrar, Dr E, described Mrs B as obese with a pulse rate of 75bpm, blood

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pressure 180/50, non-elevated venous pressure and dual heart sounds but without murmurs or added sounds. Mrs B's blood count and renal function tests were normal and her ECG demonstrated a normal rhythm, normal axis and no ischaemia (tissue oxygen deprivation). Her chest x-ray showed normal cardiac silhouette and clear lung fields. Her ESR was elevated at 57 and she had some signs of kidney damage. Dr E said that she could not explain the cause of Mrs B's ankle swelling. Dr E advised Dr C that Mrs B would need further observation of her "mildly deranged tests". Dr E recommended that Dr C arrange a repeat urea and electrolytes, micro-urine specimen, liver function tests and ESR. Dr E suggested that if these results remained abnormal then Mrs B would need further investigations. Dr E noted that Mrs B was discharged on Diamicron, Capoten (12.5mgs twice daily), Voltaren and Betnovate cream. Dr E arranged to review Mrs B at the Clinic in four to six weeks. In a letter to Mrs B, Dr C advised her of these results and reiterated Dr E's request for repeat laboratory tests.

On 2 May 1996 Dr C wrote to Mrs B advising her that the hospital had requested two or three additional laboratory tests. He included laboratory request forms in his letter. Mrs B had the tests and the results were forwarded to Dr C on 15 May. On 21 May 1996 the registrar at the Clinic, reviewed Mrs B. She described Mrs B as well, with no complaints of chest pain, abdominal pain, weight loss, change in bowel habit or breathlessness. Her pulse rate was 75 and blood pressure 160/80, her heart sounds were normal and her chest was clear. The abnormal tests, reported earlier by Dr E, had since resolved but the ESR remained elevated. The registrar recommended that Mrs B remain under the surveillance of the Clinic. On 29 May 1996 Dr C wrote to Mrs B advising her that her glucose tests remained elevated but "showed some improvement from the previous year". He asked her to have these tests repeated and enclosed a laboratory request form.

On 4 July 1996 Dr C wrote to Mrs B informing her that her blood glucose level remained "a little high" and urged her to have another test done towards the end of July. There is no other laboratory test result in Mrs B's records for July.

On 17 September laboratory tests were completed and the results entered into Mrs B's records. On 20 September Dr C recorded Mrs B's blood pressure as 200/80, and her weight as 98kgs. Dr C increased her Capoten medication to 12.5mgs four times a day. On 11 October Mrs B's blood pressure was down to 180/94 (recorded by Dr C's nurse). Mrs B continued with the same medication. There are no further entries in Mrs B's notes until March 1997.

Medical care – 1997

On 21 March 1997 Dr C wrote to Mrs B requesting that she have blood tests to check her diabetes management. On 23 April 1997 Dr C informed Mrs B, by letter, that the tests were comparable with her previous two years' glucose readings. His letter confirmed that from a long-term point of view she would need to exert much firmer control over her glucose level. He stated:

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> "… From what you have told me you are probably pretty familiar with how to go about this but if you would like we could arrange for you to attend the Diabetic Clinic, or possibly even see a specialist physician in diabetes privately."

Dr C suggested that the addition of another diabetes medication, Glucophage (metformin), once or twice a day, to the medication she was already taking (Diamicron) could improve her diabetes control. He urged her to make an appointment to discuss this with him "some time". Mrs B consulted Dr C on 5 May 1997. Her blood pressure was 160/90, weight 99kgs, heart sounds regular, pulse 80bpm and chest clear. He prescribed Glucophage 500mgs twice a day.

On 8 May 1997 Dr C made an appointment for Mrs B to visit the Orthotic Centre because she was having problems with her right foot. She also had a blood cholesterol test which indicated that her blood lipid level remained elevated: total cholesterol 6.4, LDL 4.0, total/HDL ratio 7.3.

Dr C referred Mrs B to the Eye Clinic at the Diabetes Centre on 6 June. He noted that two years previously (in September 1995) she had reported failing vision and been seen by a neurologist at a public hospital. On 11 June 1997 Mrs B called at Dr C's rooms to have her medication prescription renewed but he did not see her.

In June 1997 the Clinic advised Dr C that they had received his referrals and there would be a delay for patients wishing to attend the Clinic. Mrs B was also advised. The Clinic urged Mrs B to contact Dr C if she had any problems in the meantime. Mrs B did not consult Dr C. Mrs B obtained prescription renewals from Dr C on 11 June (Capoten, bendrofluazide, Glucophage), July (Ventolin) and 15 September (Capoten, bendrofluazide, Diamicron, Voltaren). She did not see Dr C.

Mrs B next consulted Dr C on 19 November 1997 with a painful knee. Dr C recorded her blood pressure at 170/85 and prescribed Voltaren and Capoten, and changed her Diamicron to Daonil and Glucophage. He referred her back to the Eye Clinic at the public hospital on 21 November 1997. Dr C saw Mrs B in December 1997 on an unrelated matter.

Medical care 1998

On 7 February 1998 Mrs B's (non-fasting) blood lipid levels were: total cholesterol 6.7, LDL 4.2, total/HDL ratio 8.5. The total/HDL ratio on the report was circled. Dr C advised me that this indicated that the result was elevated and he had seen the report. On 16 February Dr C received a letter from Ms F, a diabetes nurse specialist at the Clinic. Ms F had seen Mrs B and recorded her weight as 103.6kgs, blood pressure 190/90 sitting, 210/60 lying and 190/90 standing. Ms F also recorded Mrs B's blood lipid results. Ms F noted the elevated blood test results and made the following comments:

> "[Mrs B's] food plan needs to be addressed and I have referred her to our diabetologist.
>
> Obesity is a problem. She has been this weight she says all her life. We discussed lifestyle changes and I asked her to just try to reduce weight slowly only addressing small amounts at one time with the option of over a year losing seven kilos.

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Hypertension – I phoned your practice nurse today to find that [Mrs B] would appear to be running at the level above quite frequently. I have urged her to make sure that this is addressed and she will be seeing your practice nurse first thing in the morning to have her blood pressure monitored. You were not available this afternoon.

Abnormal lipids – I have discussed this with her and suggested that if the dietary changes don't make any difference then it may have to be addressed medically with medication.

Follow-up: I do not need to see [Mrs B] again in my Diabetes Nurse Specialist Clinic but I have requested a diabetologist's appointment within three to four months particularly to discuss the abnormal lipid area and also the history that she has with claudication in her right calf when walking after five minutes. This appears to be a problem associated with a problem she has had since the DVT and pregnancy 30 years ago. Her right lower leg is bigger than her left. I did not measure it with a tape measure."

Dr C made a notation on this letter to indicate that he had read it. Mrs B's medication at that time was metformin 500mgs daily, glibenclamide 5mgs in the morning, Capoten 25mgs twice a day, Voltaren 75mgs and bendrofluazide 2.5mgs in the morning. Mrs B consulted Dr C on 16 February. Her blood pressure was 170/80 and weight 100kgs. Dr C ordered repeat creatinine (renal function) tests. He noted the letter from the Clinic, including the medication Mrs B was taking. He prescribed Capoten, bendrofluazide, Daonil and Glucophage. Mrs B had her prescription renewed on 24 April (Ventolin) and 2 June.

On 14 May 1998 Mrs B saw a diabetes physician. The diabetes physician informed Dr C that Mrs B was last seen at the Clinic on 12 May. He stated: "She has had no symptoms of the complications of diabetes and feels well apart from an upper respiratory tract infection at the moment. She tests her blood sugars quite irregularly, usually only on Sunday mornings before breakfast and these have been between six and eight." When the diabetes physician examined Mrs B he found that her blood pressure was 190/86, her heart and lungs were "unremarkable", weight 102.6kgs and her BNI 40.9. He concluded:

"**Plan**: [Mrs B's] blood pressure is quite high today but I understand it has been better in the past. I have not adjusted her medication until she sees you in the next two-three weeks but our aim would be to get her systolic down below 135 as she has renal impairment and this may well be due to hypertensive nephropathy.

I have also asked her to see you about a repeat lipid test as I have started her on Bezafibrate as above for her hyperlipidaemia. If her total cholesterol and triglycerides are still elevated then you may wish to increase this further up to twice a day for three times a day. I am unsure of [Mrs B's] degree of control as she has inadequate recordings and her HbA1c is not yet available. I will arrange for her to see the diabetes nurse specialist again in three months time and alternatives could be increasing her Metformin up to twice or three times a day or changing her from Daonil to shorter acting sulphonylurea (e.g. Glipizide or Gliclazide) and increasing this up to 10mgs a day.

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> I note you are investigating her renal function but I have taken the liberty of adding in some further tests including anti nuclear antigen, protein electrophoresis and hepatitis serology. If her creatinine remains elevated then you may wish to arrange for an ultrasound. The most important thing here would be maintaining an excellent degree of blood pressure control if no reversible course is found."

Mrs B had an appointment to see the diabetes dietician at the Clinic on 18 May 1998. The appointment schedule listed her as a new patient. There is no record of Mrs B attending that appointment.

On 8 July Dr C informed Mrs B that he had received a letter from the Clinic when she was seen on 14 May and they asked him to check her blood pressure and consider an ultrasound of her kidneys. Dr C further advised Mrs B that her kidney function recorded on 15 June was below normal and that it might be related to her high blood pressure. Whatever the cause he recommended that she have a follow-up. He advised her to make an appointment to see him sometime in the near future.

On 16 July 1998 Mrs B consulted Dr C. He noted that she was "getting breathless" after meals but not on exertion. Her breathlessness settled within minutes. Her blood pressure was recorded as 160/80, weight 98kgs and blood sugar level 41. He prescribed Accupril (5mgs twice daily), Xenical, Brufen, Buscopan and Accupril. He also ordered renal function tests. He recorded a telephone call in August (see later in this report) but it is unclear to whom he was speaking.

On 22 July 1998 Mrs B had a renal and pelvic ultrasound, which was normal. In a letter to Mrs B Dr C advised her of this and that her cholesterol level was down. There was also evidence that her blood sugar level was coming under control. Mrs B commenced Xenical as a means of weight reduction and Dr C commented that he would be interested in seeing the results of this medication. Mrs B had a routine eye examination at the Clinic on 14 August 1998. The Clinic recommended that because of her diabetes she return for an eye test in two years' time. A note in Mrs B's file dated 21 August 1998 recorded her blood pressure at 180/80.

On 6 August 1998 Dr C's nurse recorded Mrs B's liver function test, glucose test and urine culture results in her notes. On 21 August 1998 her blood pressure, recorded by Dr C's nurse, was 180/80. On 20 August 1998 Mrs B attended the Clinic. Her weight was recorded at 98 kilos, having decreased 5.5 kilos since February. However, her blood pressure was elevated: sitting 224/104, lying 210/90, standing 230/90. Her pulse rate was 94. Ms F told Dr C that she was concerned about Mrs B's kidney function and suggested that the medication metformin might need to be discontinued. Ms F concluded as follows:

> "I gave [Mrs B] a letter to take to you tomorrow re her blood pressure. I am very concerned and I asked her to see you before she went to work tomorrow. I did phone you today but your surgery was closed and [Mrs B] said that she couldn't go tonight anyway. I remember her last visit to me in February, her blood pressure was also high

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> and she said she saw you the next day when it was normal. I am not sure what normal is. [Dr C's recording in February was 170/80.]
>
> I have arranged for an urgent appointment (15.9.98) with our diabetologist to discuss her recent fast deterioration in serum creatinine May 97.111, February 98.138, May 98.129, June 98.169, August 98.173, total protein 1996.4gms/day."

On 24 August 1998 Dr C received a telephone call advising him to discontinue Mrs B's Glucophage in view of her creatinine levels and to monitor her blood glucose level. Dr C has not identified in the clinical notes who he was talking to.

In September 1998 Mrs B's lipids/CVD risk was elevated although considerably improved from the May readings. Her liver function tests were within normal limits. On 9 September, in a letter to Mrs B, Dr C advised that the diabetes nurse was concerned about her kidney function but that the September result was very much better. He advised her not to take the metformin but to continue her Daonil before her evening meal. He said that the nurse was also concerned about her blood pressure and he asked Mrs B to come into the surgery for his nurse to check it again. He included a request for a further kidney function test, which she was to have "sometime next week", and another "casual" blood sugar test. There is no record that Mrs B came to see Dr C or had her blood pressure taken in response to his request.

Mrs B attended the Clinic on 15 September 1998 for two appointments, one with the dietician (new patient), and the other with the diabetes medical consultant (follow-up). Dr G examined her. Mrs B denied any symptoms related to diabetes and told Dr G that she regularly performed home glucose monitoring with typical readings of 5.1 before breakfast, 6.1 before lunch, 6.3 before dinner and 10.7 at bedtime. He indicated that this was a satisfactory diabetic control. He noted that she had discontinued the metformin medication about a month previously, because of her renal impairment, and noted her alternative medication. He recorded that her weight was 95.5kgs, her blood pressure 202/80 on her right arm, sitting, and 230/98 on her right arm, standing. Dr G also recorded her biochemistry readings, and concluded:

> "This lady has recent onset tablet treated NIDDM and good blood glucose control. Impaired renal function, (most likely secondary to her longstanding hypertension) have improved since she did discontinue NSAID medications and the Metformin. I have advised her that she must also discontinue Bezafibrate lipid lowering medication because it is also nephrotoxic. She will see the dietician for more advice about possible low fat options although she assures me that her diet is good. I will review her progress in three-six months time. If dyslipidaemia is a problem we may need to make application for a statin."

On 29 September Mrs B obtained a prescription for Daonil and Advantage test strips. She did not consult Dr C.

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On 13 October 1998, in a letter to Mrs B, Dr C advised her that after she had stopped taking Glucophage her kidney function tests had improved, but her blood glucose level was above levels previously recorded. On 22 October, Mrs B saw the community diabetes dietician. The community diabetes dietician noted the changes Mrs B had made to her diet, and her weight loss from 103kgs to 95.4kgs. She advised Dr C that she had not arranged any follow-up appointments but would be happy to see Mrs B again if he felt it was necessary.

On 2 November 1998 Mrs B renewed her prescriptions but did not consult Dr C. On 7 November Dr C's nurse filed the results of Mrs B's cholesterol test. On 16 November Dr C wrote to Dr G at the Clinic advising him that Mrs B's cholesterol had risen quite significantly since she had discontinued the metformin, and enclosing an application form in case Dr G wished to apply to Health Benefits Ltd for approval for cholesterol lowering medication (Lipitor). At the same time Dr C advised Mrs B that he had made the application for Lipitor and that Dr G had approved the application. He advised her to go to the laboratory for a fasting cholesterol estimation as all her other blood lipid tests had not been fasting levels. Mrs B's application was accepted by Health Benefits Ltd. Her notes indicate that on 28 November 1998 her cholesterol was 6.8, LDL 4.7 and total/HDL ratio 7.6.

Mrs B renewed her prescription for Lipitor on 11 December 1998. On 18 December 1998 the Diabetes Projects Trust performed an audit of Dr C's practice. Dr G was the physician/diabetes specialist involved with the audit. The report supplied to Dr C identified patients whose control was unsatisfactory while receiving maximum oral medication. The report advised that such patients have a two to ten fold increased risk of microvascular complications and may well be symptomatic. Mrs B was listed as one of the patients who was poorly controlled. Dr G advised that "assuming compliance with food plan, exercise and tablet taking, your next option is to add insulin". Dr G suggested an insulin regime. Dr C advised me that he read Dr G's letter. There is no indication that Dr C acted on this advice, either to investigate possible vascular complications or commence insulin as a means of diabetic control.

Medical care 1999

On 29 January 1999 Dr C wrote to Mrs B, asking her to come for a casual blood sugar and cholesterol check as she had been on Lipitor for six weeks. Mrs B had her medication prescriptions renewed on 15 February. She did not see Dr C and there is no record that her blood pressure was taken or that she responded to Dr C's requests from November 1998. Mrs B had her blood sugar level investigations on 20 February and the results are noted in her records.

On 1 March 1999 Dr C wrote to Mrs B advising her that the February cholesterol reading was down to 4.5 and renal function tests showed considerable improvement, and indicated that this was "an excellent result" (although the results are not in her records). He also advised her that her diabetes control was satisfactory. Mrs B had her cholesterol and blood sugar tests performed on 6 March 1999 and these results were satisfactory. Her kidney function tests, taken at the same time, indicated considerable improvement over readings

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taken the previous year. In his letter to her, dated 8 March, Dr C concluded, "You're obviously on the right track so keep it up."

Mrs B attended the Clinic on 16 March 1999 where she consulted Dr G. Dr G recorded her medication as glibenclamide (5mgs twice a day), Accupril (5mgs twice a day), bendrofluazide (2.5mgs once a day) and atorvastatin (Lipitor, no dose is recorded). He noted that Mrs B was well, with no diabetes-related symptoms, and her glucose monitoring showed her diabetes was under control. He recorded her weight at 93.5kgs, a loss of two kilos in the last six months, but her blood pressure remained elevated at 212/72 sitting and 222/84 standing. Dr G made no change to her management, beyond commending her on her efforts, and discharged her from the Clinic into Dr C's continuing care.

Mrs B attended Dr C's clinic on 14 May, 30 June and 27 July 1999 for renewal of prescriptions. She did not see Dr C and her blood pressure was not recorded. On 9 August 1999 Dr C referred Mrs B to a doctor for hearing tests, and on 12 August he referred her to a dermatologist. There are no records of any consultations with her before initiating these referrals. The results of the referrals are recorded in Mrs B's notes.

On 21 August 1999 Dr C's nurse recorded Mrs B's renal blood test results in her notes. On 26 August 1999 Mrs B attended the Clinic and saw diabetic nurse specialist Ms F. Ms F noted a deterioration in glycaemic control as a result of a recent overseas holiday. Ms F noted that Mrs B's renal function tests were normal and advised Dr C that, if her liver function tests were normal, metformin could be recommenced on a trial basis. Ms F recommended further follow-up with the diabetic nurse specialist in six months' time, and an ophthalmology check in August 2000. She noted Mrs B's last consultation with a dietician was on 15 October 1998.

On 30 August 1999 Dr C wrote to Mrs B advising her that her cholesterol level was good but that her diabetic control was "indifferent". He suggested that she had enough knowledge "to get things back on track again". Dr C did not see Mrs B.

Dr C wrote to Mrs B on 15 September 1999 telling her that Ms F had suggested a trial period on metformin to control her diabetes. He said that he would need to check her liver function tests beforehand and enclosed a laboratory request form. He also suggested that she make an appointment to see him to discuss any changes in her medication. The results of these tests were recorded in her notes on 20 September. Mrs B saw Dr C on 28 September when he prescribed the addition of glibenclamide (5mgs twice a day) to her diabetic control medication.

Mr A, Mrs B's son, advised me that halfway through 1999, when his mother returned from overseas, she was complaining of shortness of breath, tightness in her chest and indigestion type pains. Mr A recalled that in October, after seeing Dr C because of these symptoms, Dr C suggested that she take herbal digestive tablets, Blackmores. Mr A was aware that Dr C had changed his mother's medication to control her cholesterol and that this was working.

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On 1 October 1999 Dr C wrote to Ms F advising her that Mrs B's metformin had been discontinued because of her impaired renal function, not impaired liver function as she had suggested in her letter of 26 August. Dr C suggested that Ms F might like to liaise with Dr G about whether they should cautiously reintroduce the metformin now that Mrs B's creatinine was normal. He pointed out that in fact her creatinine was as high at .175 in August 1999 as when she was on metformin. Ms F wrote back to Dr C on 1 November 1999 informing him that she had discussed his letter with Dr G and that he agreed that a small dose of metformin could be commenced and that Mrs B's serum creatinine should be checked within three months. Dr C noted that he had done this.

On 2 November 1999 Mrs B attended Dr C's clinic and saw Dr D. Dr C confirmed that this was the first time during 1999 that Mrs B had seen a doctor. Dr D was Dr C's locum from 1 to 5 November 1999. Dr D recorded that Mrs B had abdominal pain, a heavy chest and breathlessness, and that her blood pressure was 180/90 and weight 97kgs. Dr D advised me that Mrs B's presentation to him was not primarily for abdominal pain or chest tightness. Following her consultations with the diabetic nurse, Mrs B was asked to see her doctor to discuss her change in medication.

Dr D recorded that he discussed the trial of metformin suggested by the Diabetic Clinic. Mrs B agreed to this. She also agreed to record her blood sugar levels three times a day. Dr D explained his recording of Mrs B's medical examination. He advised that the first sentences of his notes indicate that she took Daonil for diabetes, "hypertension, on BDF + accupril B/P 180/90. (nil medication – getting adbo pains heavy chest, breathless)." He said that he normally writes in this manner when a patient presents for a "recall" for some reason and when the patient had not presented with a medical complaint. For a person presenting with a medical problem, his normal practice is to state the presenting complaint and duration of illness as his first sentence. Dr D underlined and bracketed Mrs B's chest and abdominal symptoms. He explained that this is additional information that he wished to bring to her normal general practitioner's attention. In this instance he also underlined the symptoms, which could indicate angina. He did not do any other tests or investigations but discussed the possibility of cardiac disease with Mrs B. He advised me he was aware that Mrs B had a number of risk factors associated with heart disease and in his opinion the investigation of choice would have been an echocardiogram. He said that he did not consider that Mrs B needed urgent referral because she had not complained about these symptoms but had mentioned them to him during his medical examination. However, she was at risk of developing cardiac disease and he urged her to discuss her symptoms with Dr C should they persist or at her next visit to him. He also expected Dr C to raise the issue with Mrs B.

Mrs B's blood test results were received the following day (3 November). On 5 November Dr D noted the results and recorded that Mrs B had anaemia and her creatinine and fructosamine were outside normal limits. Dr D ticked the box on the report form "to make an appointment" for Mrs B to see him, and a letter was sent that day. He also telephoned Dr G at the Diabetes Clinic to discuss Mrs B's medication and, at Dr G's request, referred her to him. Dr D noted that he had received the letter from the diabetic nurse specialist. He and Dr G agreed that Mrs B should add one metformin after tea and continue bendrofluazide. There is no record that Mrs B attended Dr C's clinic on 5 November.

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On 1 December 1999 Dr C wrote to Mrs B enclosing a laboratory request form for a further creatinine test. He advised her that it was important to monitor her kidney function while she was taking metformin. He suggested that, while she was at the laboratory, tests should be performed to measure her average blood sugars over the preceding months. These tests were carried out on 18 December 1999 and the results became available to Dr C on 20 December.

On 18 December 1999 Mrs B consulted Dr C. He recorded that she had a feeling of a lump behind her sternum that occurred following meals. He recorded Mrs B's blood pressure as 180/80, pulse 80bpm and weight 98kgs. When Dr C examined her he found her abdomen soft but there was some tenderness around the epigastrium. He noted that she was taking a herbal digestive preparation. He prescribed Losec. Dr C advised me that, given Mrs B's weight and small stature, he considered her discomfort more likely to be acid reflux with gastritis. Dr C asked her to come back to see him in one week, which was his normal practice when he prescribed new medication. Dr C said that Mrs B had no symptoms that suggested she might have ischaemic heart disease at any of her previous consultations with him or his locum doctors, and ischaemic heart disease was not suggested in any correspondence following her admissions to hospital or consultations at the Clinic. In his opinion Mrs B's cardiac illness did not present in the usual way. On reviewing his records Dr C noted that Mrs B's blood pressure had not been as well controlled as he wished.

Dr C advised me that he did not have an electrocardiograph machine (ECG) at the time because it was in for repair. Dr C said that he would not normally refer a patient such as Mrs B for cardiac investigations unless she had cardiac symptoms or it was recommended by the Clinic. Dr C advised me that Mrs B seemed reluctant to have her blood pressure taken. She had no documented history of heart disease and her presentation to him was not typical of heart disease. In his view his diagnosis of gastro-oesphageal reflux was reasonable in the circumstances.

I asked the Clinic to describe its relationship with general practitioners. Dr G replied as follows:

> "[The Clinic] works with the philosophy that the GP is the primary care provider for uncomplicated diabetes patients. [The Clinic] provides support and advice to GPs and manage[s] complicated diabetic patients."

I asked Dr G whether Mrs B should have had cardiac investigations and, if so, what:

> "1. From the clinical record, I note that I saw this lady twice on 15 September 1998 and on 16 March 1999. On both occasions, there were no symptoms suggestive of coronary insufficiency.
> 2. I assessed her cardiovascular risk based on known risk factors of:
> 2.1 Dyslipidemia
> 2.2 Hypertension
> 2.3 Glucose control

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3. On the first occasion, she did not present significant dyslipidemia and she did receive some counselling on low fat options in the diet by the diabetes dietician on 15 October 1998. At the follow-up visit, blood lipid levels were much improved without the need for pharmacotherapy.
4. On both occasions, she did show a mild degree of systolic hypertension in clinic. This was a long-standing problem with fluctuating blood pressure levels. Blood pressure was being managed appropriately by the GP.
5. On both occasions, she presented satisfactory diabetes control (HbA1c ~ 7.0%).
6. Since Mrs B had achieved her management goals, she was discharged back to the care of her GP.
7. Although coronary artery disease is highly prevalent in such patients with type 2 diabetes, physicians worldwide would not customarily refer such patients for cardiologist review. See, Struthers AD, Morris AD. Screening for and treating left-ventricular abnormalities in diabetes mellitus: a new way of reducing cardiac deaths. *Lancet* 2002:359;1430-2.
8. The reasons are as follows:
    8.1 Non-invasive screening methods such as exercise testing lack sufficient sensitivity and specificity for routine use in patients with diabetes.
    8.2 Invasive methods such as coronary angiography are too risky for screening.
    8.3 Even if coronary artery disease was identified in a patient with diabetes, there is not enough of an evidence base to justify invasive intervention eg Angioplasty, coronary artery by-pass grafting – unless the patient already has symptoms of ischemic heart disease."

On 1 January 2000 at 1.15am Mrs B died suddenly. Her autopsy indicated that the cause of her death was ischaemic heart disease associated with atherosclerotic coronary artery disease. There was no evidence of necrosis or scarring of the cardiac muscle wall or acute infarction (heart attack).

Mr A advised me that he knew that his mother was troubled with obesity and had high blood pressure. Mr A was concerned that, in light of this background, Dr C had not performed an ECG and that, had he done so, her chances of survival may have been greatly improved.

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Independent advice to Commissioner

The following expert advice was obtained from Dr Wendy Isbell, an independent general practitioner, about the services provided by Dr C. Dr Isbell confirmed that her comments also cover the services provided by Dr D:

"**Summary**

[Mrs B] was a 57-year-old woman who was a patient of [Dr C], general practitioner, and was also seen on a number of occasions by diabetes physicians at [the Clinic].

She was known to have dyslipidaemia (elevated blood fats), hypertension (high blood pressure), and poor control of her diabetes. The diabetes clinic made recommendations about her management, which [Dr C] followed up. [Mrs B] achieved her management goals at the clinic, and was discharged back to her general practitioner's care.

Although [Mrs B] had several risk factors for cardiovascular disease, she did not present with any symptoms suggestive of heart disease, and there were no presenting symptoms of heart disease which warranted further investigation for this.

On 15th December 1999 she visited her general practitioner [Dr C] with symptoms typical of reflux, and was prescribed Losec to help with this. I gather she was asked to report back after a week, but did not do so.

She died suddenly on 1 January 2000.

A post mortem examination showed ischaemic heart disease associated with atherosclerotic coronary disease.

Comment on investigation for ischaemic heart disease in patients with diabetes

Patients with diabetes have an increased risk of cardiovascular disease. The risk is doubled for men with diabetes, and tripled for women with the disease.

Diabetologists do not tend to screen for coronary artery disease. In the past they have tried to diagnose and prevent coronary artery disease in diabetics but this had not been easy for two reasons.

Non-invasive screening methods, such as exercise testing, lack sufficient sensitivity and specificity for routine use in patients with diabetes.

Invasive methods, such as coronary angiography are too risky for screening.

Even if coronary artery disease was identified in a patient with diabetes, there is not enough of an evidence base to justify invasive intervention [surgery], unless the patient already has symptoms of ischaemic heart disease.

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New non-invasive tests may become generally available to test for cardiac problems in diabetics, and if problems are found, medical treatment can be more specifically targeted.

But whether such a strategy would cost-effectively reduce the rate of cardiac deaths in patients with diabetes needs to be investigated.

[These comments are summarised from the article Struthers AD, Morris AD. Screening for and treating left-ventricular abnormalities in diabetes mellitus: a new way of reducing cardiac deaths. *Lancet* 2002:359;1430-2.

This article is also quoted in the report by [Dr G], Diabetologist [at the Clinic], in his report dated 24 April 2002.]

It is known that in about 25% of cases of coronary artery disease, the first presentation is with sudden death. In other words, only 75% of patients with coronary artery disease present with symptoms and signs of heart disease.

It is also thought that diabetics are more likely to have 'silent' myocardial infarctions – in other words present with a heart attack without typical findings such as chest pain.

Complaint

- *[Mrs B] had a history of high cholesterol, diabetes, was overweight and had high blood pressure. [Dr C] did not do an ECG or prescribe any other investigations to rule out blockage of the coronary arteries. [Mrs B] died suddenly on 1 January 2000.*

As mentioned above, routine investigations for ischaemic heart disease are not performed in patients with diabetes, as there is no evidence that this will improve the outcome of the patient.

An ECG done on [Mrs B] may have shown changes consistent with ischaemic heart disease, but the usual screening test is an exercise ECG, and this has not been shown to be useful for routine tests in patients with diabetes.

- *In mid 1999, [Mrs B] complained of shortness of breath, tightness in her chest and indigestion type pains. In October 1999 [Mrs B] consulted [Dr C] with these symptoms and he knew she was taking Blackmores herbal digestive tablets. [Dr C] did not perform an ECG.*

There is no evidence in the case notes that [Mrs B] complained of shortness of breath, tightness in the chest and indigestion type pains in mid 1999.

[Dr C] reports that he 'saw [Mrs B] on 15 December 1999, at which time she described a feeling of a lump in the retrosternal area with some meals. On examination there was epigastric [upper abdominal] tenderness, and taking into account her short stature and weight of 98k[g] it seemed most likely that the problem was due to acid reflux with

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possible gastritis. On this basis she was prescribed Losec, and it was explained that this should reduce the stomach acidity, and in turn help to settle the problem.'

I think that the fact that [Mrs B] was taking Blackmore's herbal digestive tablets is not relevant to [Dr C's] assessment of her, or whether he should have arranged an ECG for [Mrs B].

I agree with [Dr C] that on perusing [Mrs B's] notes that 'there had been no symptoms suggestive of ischaemic heart disease, at any previous consultations with [him]self, or his Locums, nor was this possibility raised in any of the correspondence received following hospital admission, and Hospital Clinic attendances'.

Since there were no symptoms suggesting ischaemic heart disease, there was no reason for [Dr C] to arrange further cardiological investigations, including an ECG.

- *If [Dr C] had referred [Mrs B] for cardiac investigation, the blockage of the coronary arteries may have been detected sooner and appropriate treatment initiated.*

As mentioned before, diabetic patients are not routinely referred for cardiac investigations.

Non-invasive tests, such as ECG and exercise testing, are not sensitive or specific enough for routine screening in patients with diabetes.

Invasive tests such as coronary angiography are too risky for screening.

And even if coronary artery disease was detected, there is insufficient evidence to show that invasive [surgical] action is helpful in diabetic patients, unless there are already symptoms of ischaemic heart disease. Therefore I think that based on current available evidence, there was no necessity for [Dr C] to have referred [Mrs B] for cardiac investigation.

Advice

For the reason given above, I do not think that it was necessary for [Dr C] to have taken an ECG or ordered other cardiac investigations in the time that he was [Mrs B's] general practitioner.

I note that this is also the opinion of [Dr G], the Diabetologist who saw her at [the Clinic], in his report dated 24 April 2002."

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Code of Health and Disability Services Consumers' Rights

The following Right in the Code of Health and Disability Services Consumers' Rights is applicable to this complaint:

RIGHT 4
Right to Services of an Appropriate Standard

1) *Every consumer has the right to have services provided with reasonable care and skill.*

Opinion: No breach – Dr C

Right 4(1)

Mrs B had the right to medical services provided with reasonable care and skill. In my opinion Dr C provided medical care of an appropriate standard and did not breach Right 4(1) of the Code.

Cardiac investigation
Dr C was Mrs B's general practitioner for many years. He fully understood that she was at considerable risk of developing coronary artery disease as she had diabetes, hypertension, high cholesterol and she was overweight. Dr C referred her to the Diabetic Clinic regularly and followed up on its recommendations. The Diabetic Clinic did not recommend that Mrs B undergo cardiac investigation.

The diabetologist at the Diabetic Clinic, Dr G, advised me that Mrs B was at significant risk of coronary artery disease. He would not routinely subject diabetes patients to regular cardiac screening because non-invasive investigations, such as ECG, do not have 'sufficient sensitivity' to be useful, and invasive investigations, such as angiography, are too risky for patients who do not have symptoms of coronary disease.

My independent general practitioner confirmed Dr G's advice. She indicated that programmes aimed at detecting and screening for cardiac disease in cases such as Mrs B are difficult for the reasons outlined by Dr G. Even if it is known that a patient has coronary artery disease, there is no evidence to support surgical intervention. Medical treatment would be more effective at specifically targeting the symptoms.

My independent general practitioner said that exercise ECG may have been useful but would be recommended only for patients with specific cardiac symptoms. Mrs B's family believed that she had suffered cardiac symptoms for some time before her death and consulted Dr C regularly with these symptoms. My advisor noted that, in reading Mrs B's medical records, she could find no symptoms indicating cardiac disease.

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Dr C kept thorough and extensive medical records. I can find no record that Mrs B consulted him when she returned from Australia in June or October. She had two consultations in 1999: the first with Dr D in November and second with Dr C one month later.

In my opinion Dr C did not breach Right 4(1) of the Code in not undertaking an ECG or referring Mrs B for cardiac investigations. I am satisfied that Dr C provided Mrs B with medical care of an appropriate standard.

Opinion: No breach – Dr D

Right 4(1)

Dr D was Dr C's locum who saw Mrs B when she came to the surgery in November 1999. Dr C had asked Mrs B to come to see him to check the effects of her medications, which had been altered by the Diabetic Clinic the month before. Her main reason for attending was not because she was suffering chest symptoms. During the consultation Mrs B told Dr D that she had some abdominal discomfort, a heavy feeling in the chest and shortness of breath. Dr D examined her, recorded her blood pressure, and concluded that her symptoms were likely to be gastric in origin. He was aware that she was at risk of cardiac disease and discussed this with her, but he did not consider that she needed urgent referral for further investigation. He asked her to see Dr C if her symptoms persisted, or to discuss them with him at her next consultation. Dr D did not take an ECG. My independent general practitioner advised me that Dr D's diagnosis was reasonable.

In my opinion Dr D's care was reasonable in the circumstances. He recognised that Mrs B was at risk of developing cardiac disease and discussed this with her. He urged her to see Dr C, her regular general practitioner, to discuss further investigations with him. Because Mrs B's symptoms were not primarily the reason for her consultation with Dr D, he did not consider that she warranted urgent referral. In my opinion Dr D acted appropriately and did not breach Right 4(1) of the Code.

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