A dose of the wrong medicine

Medication errors have been in the news lately. Problems with dispensing errors in community pharmacies, although relatively uncommon, are familiar to GPs. The need for improvements in medicine reconciliation, especially between primary and secondary care, is also well known. The issue was highlighted by the recently publicised case of 82-year-old Mervyn McAlpine, whose death was hastened when he was given another patient's medicine in Auckland City Hospital. Three unpaginated and unidentified pages relating to another patient's medication were affixed in error to Mr McAlpine's one-page referral after it was faxed to the hospital.

A review of GP referrals sent to the hospital showed that the use of cover sheets on the front of a fax, detailing the number of pages in the communication, was rare. The correct order of pages (if more than one) was usually not stated, and they were not always faxed in the correct order. Frequently the patient's name appeared on the first page but not on subsequent pages. It was also identified that the computer software used by many GPs, MedTech32, was not set up to number pages, put a patient identifier on each page or generate a cover sheet. This particular problem has now been fixed (although the separate issue of GP referrers not using patient identifiers or page numbers when sending a referral from a fax machine remains unaddressed).

Less well known are the medication errors that occur in the doctor's surgery. In the past six months, HDC has received three complaints about practice nurses injecting the wrong medicine. If (as research suggests) complaints are the tip of the iceberg, this problem may be more widespread than generally acknowledged.

Unwanted flu vaccine

As winter approaches, many medical centres have been busy administering flu vaccinations, which are free for patients over 65. Mrs B, in her early 70s, was in good health and had never had a flu vaccination. She was planning a trip to Africa and was due for a six-month booster of a Hepatitis B vaccine. She telephoned her suburban medical centre and made a booking for the Tuesday after Easter. Her letter of complaint takes up the story:

> "When I got there, the nurse asked about my trip and proceeded with the vaccination into my left arm. She then explained to me in some detail what to expect from a flu vaccination. I told her I had decided not to have one. There was no reaction to this comment. Just as I was ready to leave, she reminded me that I was due for the booster for Hepatitis B! In great shock, I asked her what I had just been given and she said 'the flu vaccination'. She showed me on the computer screen where she had ticked the flu vaccination instead of the one for Hepatitis B. She apologised but said she could not undo what she had done. … As it was 'only' the flu vaccination, I presume that there will be no complications. But I wish this incident to go on the record, just to be sure it will not happen again, with more serious consequences."

HDC wrote to the medical centre, seeking an explanation. The nurse said that she had been busier than usual, with the flu vaccination season and it being the first day back after the Easter break. She had mistakenly annotated the computerised appointments screen to show that Mrs B was attending for "fluvac". When the nurse saw Mrs B she looked at the screen, saw "fluvac", assumed that Mrs B was there "to receive her free over 65y.o. fluvac", proceeded to give it, told Mrs B about the side effects, and recorded having given the fluvac in the computer, *then* noticed that Mrs B was overdue for her Hepatitis B booster. The subsequent discussion with Mrs B led to the error being detected.

The medical director advised HDC that he planned to "brainstorm" the case with staff. Yet the lessons were obvious enough. Human errors such as the entry of the wrong medicine in the appointments record are inevitable. But there were two opportunities for the error to be averted. The nurse should have asked Mrs B why she was attending. And the nurse should have told Mrs B *beforehand* what vaccination she was about to receive, and about the possible side effects. At a basic level, the case is a clear illustration of the importance of talking to patients and listening to their answers, rather than simply vaccinating patients as if on a production line.

An unwanted contraceptive

Two other recent cases involved the erroneous administration of the long-term contraceptive Depo-Provera, with serious implications for the women involved. In both cases, the women had seen their GP (in suburban medical centres) and been prescribed an injection of a totally different medication, but the practice nurse administered Depo-Provera.

The impact of the error is powerfully described by the first patient, a 36-year-old woman, in her complaint to HDC:

> "In November 2006, I went to my local GP as I had been suffering from a nasty tummy bug over the weekend. I had spent all weekend with constant diarrhoea, sharp tummy pains & cold sweats. My doctor prescribed Buscopan to help with the bowel spasms I was suffering from, and recommended I receive an initial treatment of Buscopan via a needle in the bottom to get things started.
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> However, the nurse involved decided to give me a dose of Depo (contraception). Unbeknown to me, I was waiting in the waiting area for 15 minutes to pass as the nurse told me to stay there to make sure no side effects occurred from the Buscopan. 5 minutes had passed & the nurse asked me to go back & see the doctor in her room, where she proceeded to advise me they had made a mistake.
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> I was totally shocked & very upset & absolutely appalled that this could happen & had happened to me. The doctor advised me there was nothing they could do to reverse it & that I wouldn't be able to get pregnant for at least 3 months but that it could be up to 9 months before the Depo is out of my system, all along apologising profusely. …

> I felt sickened & violated that a foreign substance was injected into me without my approval. As you can appreciate there is a lot of forward planning involved in preparing to fall pregnant. I had stopped taking the pill 2 months prior … My doctor is also fully aware of the difficulty I have suffered in sustaining a pregnancy to 12 weeks, having suffered 2 miscarriages & 2 D&Cs prior to the arrival of our first child. I am nearly 37 so I don't exactly have time on my side, and now this nurse has deprived us of at least 3 months if not 9 months of fertility. …
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> Not a day passes where I [don't] get upset thinking about it … all because a nurse didn't check she was following doctor's orders. I am very angry just writing this letter at how much we have & will suffer from this 'mistake'."

The woman subsequently advised me that as result of the incident, she is now receiving treatment for depression. She feels that "the whole year has been written off".

The doctor (who is still treating the woman) wrote to assure HDC that it was all simply a "human error" by a nurse with "excellent communication and technical skills" and "a sound, safe and sensitive approach to patient care". (One wonders why her communication skills didn't extend to asking the patient what she understood she was having an injection for.) The nurse had been given a script for Buscopan (noting the dosage and route of administration), but had mistakenly substituted Depo-Provera. The nurse asked another nurse to check that it was indeed Depo-Provera and that the expiry date had not passed. But the second nurse did not sight the actual printed script.

Depo-Provera again

The third case involved a 19-year-old woman visiting her GP to discuss blood results that showed a vitamin B12 deficiency. (She had originally consulted her GP about pain in her right breast, and menstrual irregularity.) The GP recommended a vitamin B12 medication, and the woman opted for an intramuscular injection. Instead, the practice nurse ("a first class nurse who has provided exemplary nursing services") gave her an injection of Depo-Provera. The woman complained to HDC, correctly noting that Depo-Provera was likely to affect her menstrual cycle, and wondering if it "may affect my health in the future given that I may wish to start a family and have children one day". She added: "Had the nurse taken the time to find out who I was, [or] told me about the medication she was about to give me, this incident could have been avoided."

The nurse's explanation was that she had been given incorrect information by the receptionist (ie, that the patient needed a Depo-Provera injection). She claimed that she had checked that the woman "was indeed there for a Depo injection" and been told "yes". The woman had not asked why the nurse wasn't administering the injection (of vitamin B12) that she had just purchased from the pharmacy. It was only when (post injection) the woman queried the need to buy the medication, when the medical centre had it in stock, that the nurse asked further questions and realised the mistake — for which she apologised, after confirming that the woman "was not currently trying for a family".

The director of the medical centre advised HDC that "we have undertaken a critical audit of our systems and have learnt from our mistake". Changes have been made in response to this incident: "Reception is now only permitted to record the nature of a patient's appointment on the nurse's template (in this case, for an injection). … The nurse is then responsible for asking and confirming with the patient the type of injection they are there for. In addition, [the nurse] must also ensure that they always check the written notes of the doctor requesting the injection or treatment, prior to its administration."

HDC response

In each of the above cases, HDC informed the complainant of the steps taken by the medical centre and nurse as a result of their experience, and as Commissioner I exercised the statutory discretion to take no further action, on the basis that "having regard to all the circumstances of the case", further action was "unnecessary or inappropriate" (section 38(1) HDC Act).

I did so with a sense of unease. It is hard not to feel that the responses of medical centres and nurses in cases where the wrong medicine has been given are formulaic: "We're truly sorry, mistakes happen, it was a human error or a systems problem [pick one or both] and we've changed our system to make sure it won't happen again." ACC picks up the treatment injury claim (though the minimal claims data required under the new scheme means that in practice ACC has very limited ability to play an effective injury prevention role) and the patient may receive paltry compensation (the cost of any extra medical fees). There is no audit of the medical centre or of the nurse's practice; no professional sanction; no publicity; and no financial penalty.

These victims of medical accidents — particularly the two patients given Depo-Provera, a powerful medication with significant side effects, and one that many women choose to avoid — are asked to accept New Zealand's rehabilitative approach, which seeks to learn from the mistake and doesn't punish the individual practitioner or entity. One can imagine a very different response from the legal system if these events had occurred in the United States.

I do not support a return to the right to sue in such situations, or the use of discipline. However, if the public is to accept a rehabilitative approach, there is strong moral duty on local practices to ensure that these sorts of cases really do lead to improved health care in the future. More policies and protocols are unlikely to solve the problem of medication errors in primary care. Whatever systems solutions are devised, the basic precaution of talking to and listening to the patient is essential. I recommend a healthy dose of this medicine to busy practitioners.

Ron Paterson
Health and Disability Commissioner

New Zealand Doctor, 20 June 2007