Table 1. Differential adrenal venous sampling results.

Vein	Aldosterone (pmol/l)	Cortisol (nmol/l)	Ratio
Right adrenal	882,500	38,770	22.76
Left adrenal	50,500	20,241	2.49
Inferior vena cava	1,180	475	2.48

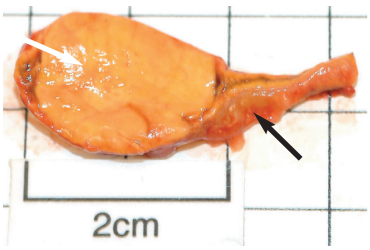

Fig 2. Cut section macroscopic appearance of surgical specimen. The glistening yellow tumour (white arrow) is well-demarcated from the adjacent normal adrenal, including the core of reddish adrenal medulla best seen in the lower right corner (black arrow).

Conclusions

- Administration of calcium channel blockers can suppress aldosterone secretion from the adrenals and cause plasma potassium levels to rise in people with a Conn's adenoma, thereby masking diagnosis.[1]
- Patients with Conn's syndrome may respond therapeutically to thiazide diuretics. The development of significant hypokalaemia on low-dose thiazide is a pointer towards, not against, the diagnosis.
- Surgical cure of hypokalaemia secondary to Conn's adenomas is more predictable than that of hypertension. Indeed, delay in diagnosis due to 'masking' by calcium channel blockers may contribute to development of irreversible hypertension.

References

1 Brown MJ, Hopper RV. Calcium-channel blockade can mask the diagnosis of Conn's syndrome. *Postgrad Med J* 1999;75:235–23.

Cleanliness and cross infection

Dear Dr Charlotte – We met recently and decided to compare your experience as a newly-qualified doctor with mine from an earlier era and agreed to adopt the format of an open letter. The first letter considered teamworking. This, the second, compares our experience on the important topic of cross infection.

Cleanliness and cross infection: the 1960s experience

Pre-clinical medical students looked similar to all other undergraduates but they were keenly aware of the changes expected of them in their transition to clinical studies. Clinical students were smartly dressed and always wore a clean white coat. Those not adhering to this code were commonly dismissed from teaching rounds. Doctors of all grades, except consultants, wore white coats. Consultants were well dressed with shirt, tie and often a flower in their lapel. It was only somewhat later that they also adopted the white coat.

The nursing staff were always extremely smart wearing dresses (colour coded to their seniority), aprons and caps. Regular inspections were held to maintain high standards. The ward sister was authoritative and in charge. Any lapse in standards for any one on the ward, regardless of rank, was immediately identified and corrected.

The domestic staff were also under her eagle eye but were included as part of the team and commonly gave many years of devoted service to 'their ward and their sister'. The entire ward, including the bathrooms and sluice, was spotless. Cleaning was a major part of the student nurse's responsibility.

Procedures on the ward were carried out to a high standard. Blood sampling included the use of a sterile pack for swabbing the arm and the area was surrounded by a sterile towel. The pack contained a glass syringe and reusable metal needles. Intravenous infusions or catheterisations were carried out by a doctor and nurse who wore sterile gloves after thorough hand washing. All the equipment, including the reusable metal cannulae, was provided in a sterile pack. Lumbar punctures were carried out using masks and gowns in addition.

Whether these measures minimised cross infection is uncertain. The pattern of care was so different. The range of available antibiotics was limited. Immuno-compromised patients were rare. There were no transplant programmes and little chemotherapy. The surgical wards were mainly filled by fit young patients having surgery for hernias, varicose veins or piles. The older patients were usually looked after in separate wards.

I expect that there will be a wide gulf between your experience and mine. I look forward to hearing of your time as an F1 doctor.

The Editor

In response
Cleanliness and cross infection: the 2007 experience

Editor – It still remains important for the image of the medical profession that doctors continue to look professionally dressed. Even now clinical students and junior doctors are still expected to dress smartly. For men this means a shirt and tie, although what women should wear to look smart is less clear, and can be interpreted more liberally. It would now be a brave ward manager who challenged the dress of a junior doctor or medical student: indeed, mirroring a change of attitude within society, juniors are often less smartly dressed than in the 1960s.

When I started my first placement as a second-year student, I was proud to be issued with a white coat, and to feel 'more like a doctor'. This sensation was short lived, as I quickly realised that white coats now seem outdated. Apart from second- and third-year medical students, only laboratory technicians and the occasional consultant still wear them. An unwritten rule dictates that senior medical students abandon their white coats in favour of a dress code closer to that of junior doctors. Without their white coats, doctors are now identified by a stethoscope draped round their neck – this was not permitted for medical students where I trained.

White coats have been abandoned because of a concern that they were changed infrequently, and therefore spread infection. However, whether clothes, especially suits (worn by senior members of staff) are washed more frequently than white coats, is debatable. As concerns over infection control continue, it is likely that dress codes for doctors will undergo further changes. Even the traditional shirt and tie is now discouraged, since ties have the potential to spread infection between patients. A solution to these concerns would be to have a uniform for ward-based junior doctors, perhaps 'scrubs'. This would have great support among juniors and would minimise risks of cross infection.

In keeping with a relaxation in doctor's dress, nurses' uniforms have also changed. Hats and starched aprons have been replaced with a dress, or more frequently trousers and a tunic top, more practical for lifting patients, and easy to keep clean. The plastic apron is an addition to the uniforms of nurses and doctors alike. Its value as a barrier to prevent cross infection seems uncertain, but they are always worn when caring for patients with infections such as MRSA.

Although infection control concerns may necessitate changes in doctor's clothing, the major focus is thorough and frequent hand washing. Alcohol hand gel is now found at each patient's bedside, throughout the wards and hospital, to promote hand hygiene for staff, patients and their visitors. Effective hospital cleaning is also crucial and is undertaken by ward housekeeper's, under the management of the hotel services department, rather than the ward manager. Cleaning duties are no longer a role for student nurses, perhaps because the focus of training has altered, since many complete a degree before qualifying.

Minimising the risk of infection is important when performing invasive procedures. For simple procedures, such as venepuncture, a swab is used to clean the skin. Sterile dressing packs are no longer needed, now that disposable needles and syringes are used for venepuncture and disposable plastic cannulae for cannulation. For catheterisation and lumbar puncture, sterile gloves, disposable aprons and sterile packs are used as part of aseptic technique, but masks and gowns are not worn. Doctors no longer have a monopoly on performing procedures; routine blood collection is performed by phlebotomists and intravenous infusions are set up by nurses. It is therefore important that all staff have training in infection control measures.

The era of a consultant appearing with a flower in his buttonhole is long gone. With the demise of the white coat, the stethoscope remains the chief symbol distinguishing doctors from medical students, dietitians and pharmacists. To minimise risk of cross infection, it may be that ward-based doctors will be identified by a new uniform. Although doctor's dress codes may change in response to infection control concerns, the major focus of this is raising awareness, hand washing and rigorous cleaning. Comparing your experience with mine, these are not new ideas. Indeed, it seems that cleanliness may have been better maintained when under control of a ward manager, rather than centrally.

Charlotte Allan