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Cover photograph: courtesy Ray Sherman
Mobile telephone use among Melbourne drivers: a preventable exposure to injury risk

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To the Editor: Taylor et al found that: “Mobile phone use is common among Melbourne metropolitan drivers despite restrictive legislation” and suggest that this constitutes “a preventable exposure to injury risk”.1 This raises two questions:

■ Does mobile phone use while driving affect road safety?
■ If so, do hands-free devices reduce the risk?

In their introduction, Taylor et al cited six publications to provide evidence that the use of a handheld mobile phone while driving increases the risk of a road crash. The studies by Lamble et al2 and McKnight and McKnight3 involved a hands-free device and examined driver impairment, not crash risk. The three papers by Violanti4-6 had significant limitations, including no phone billing information to demonstrate that drivers were using their phones at the time of the crash,4-6 reliance on police accident reports that may have involved more thorough investigations into fatal crashes than non-fatal ones,5 and small sample size with only 14 mobile phone users in one study.6 These limitations reduce the validity of the research.

The best of the epidemiological studies was a case–crossover study of 699 drivers in collisions involving property damage only.7 However, the oft-quoted four-fold increase in risk comes from the analysis of mobile phone use in a 10-minute hazard interval before the collision. This does not provide conclusive evidence that these drivers were on the phone at the time of their crash and indicates a statistical association only. Although shorter hazard intervals were also examined, one needs to be wary of the potential for misclassifying post-crash calls as pre-crash calls because the time of collision may be imprecise, mobile phone use is common following a crash and a call to the emergency services may not be the first call made after the event. If we conclude that the data are valid despite these limitations, then the fact that hands-free models did not reduce the risk must be noted.

Returning to our questions, although there is good evidence demonstrating driver impairment in laboratory-based studies, the epidemiological research has limitations that need to be dealt with to determine the real-world effect of mobile phone use while driving. We are currently undertaking two large epidemiological studies in Perth, involving about 2000 drivers over an 18-month period. The limitations have been addressed in the design of our studies. Furthermore, the evidence to date suggests that hands-free devices do not confer a safety advantage and this issue should not be ignored in driver education.

Taylor et al suggest, “Further interventions aimed at decreasing mobile phone use among drivers should be considered.”4

Occupational safety professionals consider that a worker not complying with the safe practices for using a tool should be offered remedial education. If education fails, they stop the worker using that tool.

Wise parents also consider taking away a child’s toy until the child can learn to use it safely.

And so with mobile phones used while driving. Driver safety education is not very effective. Police have powers to impound items related to other offences, and so should have powers to impound mobile phones used when driving. The driver could then claim it, say, four weeks later, from the police station on payment of a fee-for-service to the police that covers, at least, the relative value of the expenses of the police. The driver would also incur demerit points. Repeated offences would mean they forfeit the phone or their licence.

Correspondents
We prefer to receive letters by email (editorial@ampc.com.au). Letters must be no longer than 400 words and must include a word count. All letters are subject to editing. Proofs will not normally be supplied. There should be no more than 4 authors per letter. An “Article Submission Form” (www.mja.com.au/public/information/instruc.html) must be completed and attached to every letter.

There should be no more than 5 references. The reference list should not include anything that has not been published or accepted for publication. Reference details must be complete, including: names and initials for up to 4 authors, or 3 authors et al if there are more than 4 (see mja.com.au/public/information/uniform.html#refs for how to cite references other than journal articles).

No one is questioning that mobile phone use imposes physical, visual, and cognitive demands on the driver. Although technology can help to address physical and visual factors, education is required to address cognitive factors. The Australian Mobile Telecommunications Association has developed 10 safety tips for mobile phones and driving (see www.amta.org.au) and, by adhering to these simple common-sense practices, drivers can make full, productive and safe use of mobile phones.


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IN REPLY: McEvoy and Stevenson raise some important issues. The first relates to the confusion between driver impairment and crash risk. Intuitively, this association seems valid, as any level of driver impairment could be expected to affect driving skill. However, they are correct to suggest that the two should not be used interchangeably without supporting evidence.

Secondly, I agree that the quality of evidence directly linking mobile phone use with crash risk is poor. This largely relates to the difficulty in confirming mobile phone use at the exact time of the crash. Reported direct observation is uncommon, billing records are inexact, and self-report may be subject to prevarication bias.

The use of hands-free devices was not examined in our study, mainly because of difficulties in detecting their use. There is anecdotal evidence of a trend towards the use of these devices while driving. However, while their use might avoid the need to physically hold the phone, they may not significantly diminish driver impairment resulting from distraction.

Many questions remain, and I encourage McEvoy and Stevenson in their endeavour to more clearly evaluate the real-world risk of mobile phone use, both handheld and hands-free, by drivers.

Chalker et al draw attention to the comparison of crash risk for mobile phone use while driving and drink driving. I acknowledge that interpretation of published studies is confusing. Redelmeier’s statement that alcohol circulates for hours and that a telephone call may last for only minutes relates to individuals. From the highway perspective, when one driver completes a call, another is likely to be starting one and effectively assuming the increased collision risk. This concept is consistent with our findings. Almost 2% of drivers were using mobile phones when they passed our observation points, and were therefore at risk at that time. The exact extent of this risk awaits clarification. Chalker et al provide US alcohol and mobile phone related crash statistics. Unfortunately, the latter were not referenced and their value is therefore questionable.

Finally, Chalker et al are to be commended for publishing safety tips for mobile phone use while driving. However, their claim that common-sense practices can make mobile phone use safe is extraordinary and disregards emerging evidence. Indeed, this statement appears to contradict their first safety tip, which states “a hands free device can reduce the physical effort to make and receive calls; however, it alone doesn’t make using a mobile phone while driving safer”. At best, therefore, common-sense practices will not make mobile phone use while driving safe, only possibly safer.

Although chlamydial infection was not notifiable in WA until 1993, it has been part of the sexually transmitted infections (STI) control program of the Kimberley Public Health Unit (now the Kimberley Population Health Unit) since the 1980s. Since 1989, regional STI management guidelines have recommended that testing for chlamydial infection (and gonorrhoea, syphilis, hepatitis B and HIV infection) be offered to all patients presenting with STI symptoms or as a sexual contact of an STI patient, and as part of antenatal, prison and well-person’s screenings.1,2

In 1996, empirical treatment for chlamydial infection with single-dose azithromycin (funded by the Kimberley Public Health Unit) was added to the standard treatment regimen, and antibody testing and culture were replaced by nucleic acid testing, which is more transport-robust and sensitive. This led to the introduction in 1997 of active health-service-initiated contact tracing for chlamydial infection (ie, sexual contacts reported by patients with chlamydial infection are actively sought by health staff and offered an STI consultation and empirical treatment). Between 11 June 2001 and 29 June 2002, WA Health Department staff (who contribute over 70% of the region’s STI notifications) notified 94 cases of chlamydial infection in female patients and 56 in male patients.2 Co-infection was common, with 61 patients (41%) also having gonorrhoea and four (3%) also having syphilis. Of the female patients, 30% were tested for chlamydia because they had self-presented with STI symptoms, 32% as part of antenatal or well-person’s screening, 36% because they had been reported as a sexual contact of a patient with STI, and 2% for unknown reasons. The corresponding proportions in male patients were 45%, 7%, 45% and 4%, respectively (Pearson \( \chi^2 = 12.6, df = 3; P = 0.006 \)).

Prevalence of chlamydial infection in the Kimberley antenatal population (69% of whom are screened for chlamydia) is 3% (95% CI, 2%–6%).6 Prevalence in 93 Kimberley men screened consecutively on admission to prison during 18 weeks in 1998–1999 was also 3% (95% CI, 1%–9%). During this same period, prevalence among 59 Kimberley men and 68 women presenting consecutively as STI contacts was 19% (95% CI, 11%–31%) and 22% (95% CI, 14%–33%), respectively (Mak DB, unpublished data).

These data demonstrate that contact tracing contributes significantly to chlamydial case-finding, and support the addition of azithromycin to the Kimberley’s empirical STI treatment regimen.

Empirical treatment and contact tracing for gonorrhoea over more than 15 years have been associated with decreases in the rate of gonorrhoea and the male:female ratio of cases in the Kimberley (Box). Seven to 8 years after introducing empirical treatment and contact tracing for chlamydial infection, rates have increased in both sexes, as has the proportion of male notifications (Box). Further progress in control of chlamydial infection requires continued provision of STI screening, treatment and contact-tracing services that are acceptable and accessible to both men and women.


Positive Q fever skin test after vaccination

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To the Editor: In May 2000 and December 2001, I vaccinated two women for Q fever (Q-Vax, CSL). Both had negative blood tests (IgG < 1:10 by immunofluorescence) and skin tests. Both had local reactions similar to those described by Mills et al.1 In both women, the skin test became positive after vaccination.
The first woman had visited a farm on weekends, but had had no direct exposure to cattle, sheep or goats. Swelling at the vaccination site occurred within 72 hours, forming a lump 70 mm x 30 mm in size and causing significant discomfort. The skin test became positive at the same time. A surgeon excised the lesion 5 months after vaccination, and scarring resulted. The histological appearance was similar to that described by Mills et al, including a granulomatous panniculitis. The tissue was weakly positive for Coxiella burnetii by a polymerase chain reaction test (Professor BP Marmion, Institute of Medical and Veterinary Science, Adelaide). The skin test was still positive 7 months after vaccination.

The second vaccine recipient lived on a cattle property and was involved with calving. She reported that her skin test became positive 5 weeks after vaccination (an observation confirmed by me a week later). The test was still positive at my final review 4 months after vaccination. Although the swelling at the vaccination site reached 50 mm x 20 mm, it caused little local pain or inconvenience. The lesion resolved spontaneously without scarring.

The first of these cases had a much shorter onset period than that described by Mills et al. Their article did not document the fate of the skin tests, but based on the two cases I report here, and other cases notified to me by general practitioners, I suspect that prolonged positivity may be the rule rather than the exception.

**Reuse of single-use medical devices: how often does this still occur in Australia?**

**Sandy J Berenger,** John K Ferguson

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**IN REPLY:** Collignon and colleagues decry the reuse of “single-use” medical devices. Unfortunately, the focus on reuse of items labelled as single-use detracts attention from some of the more serious issues with cleaning of reusable instruments.

All hospitals have cleaning failures that occur because some instruments are virtually impossible to clean. Examples include hollow instruments such as bone reamers, biopsy needles and tissue forceps. The actual sterilisation process (as described under Australian Standard [AS] 4187) is not at issue here. Rather, it is the poor design of instruments, and the lack of any standardised assessment process to determine whether an item is capable of being cleaned against that standard. One study found that most “sterilised” artery forceps had residual tissue, visible by light microscopy, representing an unknown, but real, infection risk. Most Australian hospitals do not examine surgical instruments under the microscope for grooves or cracks, and instrument sets remain in circulation for many years.

In contrast, the most common “single use” critical items that are reused in many Australian hospitals are electrophysiological stimulation (EPS) and aberrant cardiac pathway ablation catheters; there have been no reports of significant mechanical or patient safety issues from reuse of a wide range of cardiac catheters, including EPS and ablation catheters. The sterilisation process itself has been validated for these items.

At John Hunter Hospital, the process of reuse is controlled by a quality system that is far more stringent than the existing AS 4187 Standard. Devices are used for a set number of times before discard, and each catheter use is tracked to the specific patient and procedure. After cleaning, each catheter is examined under x10 magnification to detect defects. The catheters are tested electrically at the point of use and patient consent is obtained before the procedure. The John Hunter Hospital program has operated for 6 years with an estimated cumulative cost saving of $6 million (compared with no reuse). Patient outcomes are monitored, and no adverse events have been detected. Clinicians express a high degree of satisfaction with the program.

The same standard of equipment design, assessment and cleaning should be applied to all instruments that contact sterile tissue. Whether or not a company chooses to label its product “single-use” should not determine whether the item should or should not be reused. More often than not, such labelling serves to benefit financial return rather than patient safety. Hughes entreats us to cease reuse practices until there is incontrovertible proof of the safety of reuse. This statement should also apply to routine surgical items. In this era of zero risk tolerance, perhaps the consent process should make patients aware that reusable instruments processed under AS 4187 cannot be guaranteed to be free from human tissue contamination.


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**IN REPLY:** Berenger and Ferguson correctly raise the issue of sterilisation procedures for devices used in surgery. They have also described specific measures taken at their hospital for a specific device and, more importantly, have developed a system to ensure the highest quality of sterilisation process in a medical device.

Of course, the use of any surgical device should be subject to the strictest sterilisation procedures. Most reusable surgical instruments do have documented sterilisation protocols which include verification of the process used. All surgical instruments, whether designed for reuse or not, whether used for the first time or the tenth time, should be subject to the scrutiny, sur-
veillance and meticulous records demonstrated by the John Hunter Hospital system. This hospital is to be congratulated on its attention to detail. Were similar stringent protocols in place across all disciplines and in all hospitals, the debate would cease to rage. More importantly, many devices could be safely and efficiently reused. Others may be considered too difficult to resterilise. Nevertheless, asepsis would, once again, be positioned where it belongs, as one of the key principles of surgery.

The public hospital of the future

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To the Editor: Your otherwise excellent issue on chronic illness (1 September 2003) was timely and appreciated. However, the article by Zajac on the future of public hospitals left me pondering how frequently he patrolled the wards and the emergency department.

Most public hospitals have undergone the revolution he adumbrates.

- Patients now arrive with automated medication records and problem lists from their general practitioner;
- GP liaison doctors from the Divisions attend discharge planning committees;
- discharge summaries are delivered by fax on discharge;
- multidisciplinary clinics abound for complex and chronic illness, but invited GPs claim that time commitments and insufficient payment often preclude attendance;
- there are target waiting times for clinic appointments;
- often there is a quality assurance unit, with a complaints or grievance procedure;
- day surgery and day of admission surgery is now the norm (and strict guidelines help control the morbidity Zajac bemoans), with vastly improved throughput;
- endoscopy and emergency cardiac catheterisation or angioplasty on demand are commonplace;
- we now acknowledge, document and rectify system errors with alacrity, without the rancour and recrimination of years ago; and
- evidence has replaced the wise maxims of the physician.

Admittedly, all is not rosy and funding remains a perennial problem, but within available resources the public hospital is a completely different place from 15 years ago.

A major issue, and Zajac agrees, is the place of general medicine in the public hospital, being rapidly subsumed by sub(super)-specialists together with emergency physicians, as they are available round the clock, skilled and equipped to perform the assessment and early management of most medical patients, while the physicians are in rooms or at home.

We welcome the presence of general physicians in the emergency department, and encourage twice-daily rounds on admitting day with shared care, but so far the rhetoric of general medicine has rarely been matched by attendance.

The real challenge for public hospitals at present is to effectively manage and discharge frail elderly patients, and those with cognitive impairment, thus keeping beds free to reduce access block; otherwise general medicine may suffer the fate Zajac reserves for public hospitals and become “a thing of the past”.

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In reply: Walpole and I agree that public hospitals have changed significantly. Where we seem to disagree is that he suggests that we have got to where we are going and all the problems have been solved.

Walpole clearly works in a different world from me. Even a short visit to the wards and emergency department reveals that, despite good will, planning and many of the changes Walpole lists, things are far from perfect. System errors, major and minor, occur far more commonly than they should, elderly patients spend more time as inpatients than they should, and stresses in the system continue to impair quality and efficiency. I think we need to keep working on these issues, and not pretend that they are fixed.

I note with dismay the description of general physicians occasionally visiting Walpole’s emergency department, while other specialists work diligently, 24 hours a day, to heal the sick. These comments demonstrate one of the main problems with doctors in public hospitals, namely, the territorial imperative in full flight. We should be finding ways to work together.

Australian healthcare reform: in need of political courage and champions

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To the Editor: The Editor’s article on health reform and the Australian Health Care Summit,1 in which he expressed sentiments with which I agree, included a Box setting out the “egalitarian and socially cohesive principles underpinning Australia’s healthcare” reaffirmed by the Summit.

However, the Box contained a Christmas tree and an invitation to readers to enter a poem in the MJA’s Christmas Competition 2003. Among the lines were: “‘Tis Christmas, the season to be kind”.

While obviously the result of a glitch in the production process, you managed — much to the envy of other editors and
publishers seriously wounded by such glitches (to the extent that entire print runs have had to be pulped and then reprinted) — to fall on your feet.

I could not think of a better (or more comprehensive) set of principles to underpin our healthcare system than those embodied in the message and spirit of Christmas.

Perhaps God moves in mysterious ways.


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TO THE EDITOR: 9/15 was disaster day at the MJA.¹ Not only was the Editor guilty of printing perseveration, but his “Box” seems to have been transmogrified from . . . “(the) socially cohesive principles underpinning Australia’s healthcare” to an invitation to “expose” the readers of the Christmas journal to some “witty prose”.

Perhaps the “healthcare dialogue” has indeed been reduced to rhyming couplets, possibly accompanied by the health ministers fiddling while the rest of us burn?