The general practice experience of the swine flu epidemic in Victoria — lessons from the front line

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ABSTRACT

- The swine influenza (H1N1 09) outbreak in Victoria has provided an excellent opportunity to review the Australian Health Management Plan for Pandemic Influenza (AHMPPI) and to assess its performance in practice.
- General practitioners play a major role in seasonal flu management, and it was expected that the AHMPPI would enable GPs on the front line to maintain this central role during the swine flu pandemic.
- The role of front-line GPs has been made extremely difficult by deficiencies in implementation of the AHMPPI, including resource supply failures, time-consuming administrative burdens, delays in receiving laboratory test results and approval for provision of oseltamivir to patients, and a lack of clear communication about policy changes as the situation progressed.
- We must use this experience to ensure timely and appropriate review of the AHMPPI and the way it is implemented. Better consultation with front-line clinicians, particularly GPs, is crucial and must occur as a matter of urgent priority.

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The H1N1 influenza 09 (swine influenza) outbreak in Victoria has provided an excellent opportunity to review the Australian Health Management Plan for Pandemic Influenza (AHMPPI)[1] and to assess its performance in practice. I write as Chair of a Division of General Practice located in one of the most swine flu-affected areas of Melbourne and from my own experience as a front-line general practitioner in the past 4 hectic weeks, along with experience in influenza clinical research and prior active membership on government influenza and other vaccination program management committees.

GPs play a major role in seasonal flu management, and we expected that the AHMPPI, in particular the stockpiling of personal protective equipment (PPE) and antiviral drugs, would enable us to continue playing this central role in flu management when the anticipated pandemic finally arrived.

The first case of swine flu in the northern suburbs of Melbourne was announced on 20 May 2009. By 24 May, large numbers of patients — many just scared, some with seasonal flu, and an increasing proportion with swine flu — were presenting to GPs and hospitals in northern and north-eastern Melbourne. As GPs, we found ourselves suddenly in the middle of the outbreak, and it quickly became evident that the rhetoric contained in the AHMPPI did not match the reality on the ground.

AHMPPI, page 126:

PPE will be prioritised to frontline health care workers who:

- work in a service that forms part of the health sector response sanctioned by the state or territory health department, and
- provide direct clinical or personal care to suspect and confirmed cases of pandemic influenza, and
- are considered to be at high risk of exposure to the pandemic influenza virus.

GPs' front-line role commenced on 22 May when an alert notice was received from the Victorian Department of Human Services (DHS). Despite assurances from the federal Minister for Health and Ageing at the Australian Medical Association national conference on 29 May that the government would expedite the supply of PPE to Victorian GPs,[2] it was not until 23 June that our Division received a limited supply of PPE from the national stockpile to distribute to the 45 general practices that had requested supplies. We received 120 bottles of handwash (30% of the amount ordered; average of three per practice), 288 goggles (40%; six), 1500 pairs of gloves (6%; 35) and 8000 surgical masks (80%; 180). Notably, no P2 masks or gowns were supplied.

The plan outlined in the AHMPPI rings hollow when we see the reality of a national PPE stockpile that cannot be deployed rapidly in adequate numbers to where it is needed. Commitment is required from government to confirm that the general practice role in the AHMPPI is additional to normal practice. The actual size of the stockpile and the process for its distribution to general practice require clarification. Review is needed to ensure there is a mechanism for ready release of the supplies held in each state, rather than every individual order having to be personally approved by the federal Chief Medical Officer, as has been the case in this pandemic.

AHMPPI, page 49:

A range of strategies will be used to ensure that people delivering health care are provided with the most appropriate protection from infection in the workplace …

Protection measures that may be applied include …

- providing antiviral prophylaxis according to current guidelines (see Appendix H)

AHMPPI Appendix H, page 128:

Antiviral usage includes …

- post-exposure prophylaxis to reduce the risk of infection in people who have not been able to avoid close unprotected contact with an infectious case, such as:
  - in health care and some other occupational settings …
- pre-exposure prophylaxis to reduce the likelihood of infection when:
  - persons are exposed to an aerosol generating procedure on a case
  - there is likely to be ongoing re-exposure to known infectious cases …

According to the AHMPPI, individual staff members experiencing unprotected contact or repeated exposure to infectious patients should have been offered prophylaxis. However, this was not made available from the stockpile unless exposed staff displayed symptoms, which also meant they would require home quarantine for a minimum of 3 days. GPs were not supplied with antiviral therapy to hold for staff use; we were instructed by DHS advisers to purchase it ourselves if we thought we needed it.

It is only due to the low virulence of the virus[3] that this pandemic has merely stressed our local service delivery and not completely paralysed both our and the statewide response.

Resource supply failure is just one example of the inadequacy of implementation of the AHMPPI in regard to front-line GPs and nurses. The added burden of time-consuming administrative processes required by authorities interfered with our capacity for service delivery at the time of peak pressure. During the 2 weeks before Victoria moved to the "Modified Sustain" phase, it often took more than 20–30 minutes per case, mainly waiting on the telephone, to obtain necessary approval for laboratory tests and supply of oseltamivir to patients.

Furthermore, laboratory test results were not readily available to treating physicians. We were initially advised by staff at the Victorian Infectious Diseases Reference Laboratory (VIDRL) that results for approved tests were being delayed by the overwhelming number of requests, and results would eventually be sent to GPs after the backlog was cleared. After 3 weeks, our practice had still not received reports. At the time of writing, VIDRL staff advise that reports will not be sent to practices, and GPs must instead phone the laboratory to obtain results.

GPs suspected that the case-definition criteria advised by the DHS when cases were first identified in Victoria (ie, influenza-like illness [ILI] in a person, with onset within 7 days of travel to Mexico, the United States, Canada, Japan or Panama, or within 7 days of close contact with a person who is a confirmed case of H1N1 influenza 09) were missing the main target group for measuring community spread,[4] as more influenza was spreading locally than from confirmed contacts or travel.

Furthermore, with the change to the Modified Sustain phase in Victoria on 3 June,[5] the new case definition was paradoxically too wide, providing oseltamivir for all people with ILI who presented within 48 hours of symptom onset. Sentinel surveillance in Victoria during the first 2 weeks of June showed that 24% of patients presenting to general practice with ILI tested positive for influenza. Of those, 18% had H1N1 influenza 09.[6] This means that only about 5% of patients treated had the swine flu strain. With 799 confirmed new cases of swine flu in Victoria between 1 and 14 June,[7] this suggests that in the order of 10 000–15 000 people may have been treated with oseltamivir for ILI that was not actually influenza. If we factor in the added prophylactic courses given to all household contacts of people with ILI, the impact on the national stockpile is significant.

A new strategy to consider including in the AHMPPI is the use of a point-of-care rapid antigen test for influenza.[8] This test is readily available and easy to perform by GPs, with results available in 10 minutes, and a sensitivity for influenza virus of approximately 80%. This could provide a cost-effective method to more reliably identify those cases of ILI that are actually influenza, and therefore significantly improve the appropriateness of protocols for laboratory testing and antiviral treatment.

Review of case definitions and treatment policy was expected as the situation evolved. However, general practice needs to be more closely involved in the decision-review process, so that feedback from live experience can better inform the process and provide valuable GP perspective on the anticipated impact of any proposed changes.

AHMPPI, page 34:

Primary care providers will be provided with timely alerts by health departments through fax, websites, email via existing mailing lists, and other broadcast systems held by the various peak medical and health care bodies representing medical practitioners, pharmacists and nurses.

The AHMPPI makes it clear that communication of policy changes needs to be highly efficient to ensure currency and consistency of advice across public and private health providers. However, experience showed that when policy changes occurred, their communication to GPs was not adequately coordinated. GPs were unsure whether they should be checking websites for updates, or waiting for faxes from the Division or letters from the federal and/or state or territory Chief Health Officer. One straightforward message is needed for each jurisdiction, and must be delivered via a clear communication pathway that is developed in consultation with general practice.

The reality in a community-based flu pandemic is that the public health response relies mainly on implementation of the AHMPPI by GPs and nurses in private general practice, as well as some working in a few designated flu clinics. However, there appears to be endemic failure on the part of health authorities to really understand the importance of implementation issues for community-based operations, and the AHMPPI is typical of this. This is where the consultation process is most lacking and the impact on service delivery is critical.

We in general practice are ready, willing and able to fulfil the central role expected of us in the AHMPPI, but it will be difficult or impossible to perform that role if we are not appropriately resourced. We cannot expose our doctors and nurses to risk of infection by having them perform high-risk procedures without proper supplies of PPE and readily available courses of antiviral therapy. Although this is primarily for the sake of their own occupational health and safety, it is also because most general practices are not large enough to remain operational with any significant level of staff absence.

Unless the issues that face general practice are adequately addressed, I fear many GPs may limit their services during current and future influenza pandemics to the primary role of treating patients who do not have ILI. Anecdotal reports from GPs working in the three flu clinics in the northern suburbs of Melbourne reveal many examples of patients with ILI who were diverted directly to the flu clinics rather than being seen by their GPs. We are also aware that designated flu clinics and hospital emergency departments will struggle to cope with additional patient load.

It is imperative that we use our recent experience to ensure timely and appropriate review of the AHMPPI and the way it is implemented. Greater focus is needed on implementation issues in future planning processes. Better consultation with front-line clinicians, which must include GPs, is crucial and must occur as a matter of urgent priority.

Competing interests

I am a clinical trial investigator for influenza treatment and surveillance studies for Roche. I am a member of expert advisory panels for GlaxoSmith-Kline (GSK) vaccines and Chair of a judging panel for the GSK Adult Immunisation Grants program. I have also been an educator, speaker and author for Divisions of General Practice immunisation education sessions, with funding having included contributions from GSK on several occasions.

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References

1 Australian Government Department of Health and Ageing. Australian health management plan for pandemic influenza. Canberra: Commonwealth of Australia, 2008. http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/ahmppi (accessed Jun 2009).
2 Woodhead M. Roxon to hand over swine flu supplies. 29 May 2009. http://www.6minutes.com.au/articles/z1/view.asp?id=483587 (accessed Jun 2009).
3 Senanayake SN. Swine flu update: bringing home the bacon. *Med J Aust* 2009; 191: 138-140 [Published online ahead of print, 17 Jun 2009].
4 Grayson ML, Johnson PDR. Australia's influenza containment plan and the swine flu epidemic in Victoria [editorial]. *Med J Aust* 2009; 191: 150 [Published online ahead of print, 17 Jun 2009].
5 Victorian Minister for Health. Victoria moves to Modified Sustain phase of flu plan [media release]. 3 Jun 2009. http://www.premier.vic.gov.au/minister-for-health/victoria-moves-to-modified-sustain-phase-of-flu-plan.html (accessed Jun 2009).
6 Victorian Government Department of Human Services. First detailed analysis of influenza sentinel surveillance [media release]. 19 Jun 2009. http://humanswineflu.health.vic.gov.au/downloads/media/media-release190609.pdf (accessed Jun 2009).
7 Australian Government Department of Health and Ageing. Update bulletins for H1N1 09. http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/updates (accessed Jun 2009).
8 Cheng AC, Dwyer DE, Kotsimbos ATC, et al. ASID/TSANZ guidelines: treatment and prevention of H1N1 influenza 09 (human swine influenza) with antiviral agents. [Published online ahead of print, *Med J Aust* 18 Jun 2009].

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BOOKS RECEIVED

Adult congenital heart disease. Thorne S, Clift P (eds). Oxford: Oxford University Press, 2009 (xxiii + 252 pp $130.00) ISBN 978 0 19 922818 8.
Anti-tuberculosis drug resistance in the world report no. 4. Geneva: World Health Organization, 2008 (151 pp $68.95) ISBN 978 9 241 563611.
The biggest loser. Secrets of our success. Waters V. Sydney: Ebury Press, 2009 (213 pp $34.95) ISBN 978 1 74166 851 3.
Calcium and magnesium in drinking water. Geneva: World Health Organization, 2009 (xi + 180 pp $60.95) ISBN 978 92 4 156355 0.
Clinical virology. Richman DD, Whitley RJ, Hayden FG (eds). Washington, DC: ASM Press, 2009 (xvi + 1375 pp $339.95) ISBN 978 1 55581 425 0.
Contraception: an Australian clinical practice handbook. Canberra: Sexual Health & Family Planning Australia, 2008 (iv + 223 pp $55.00) ISBN 1877026158.
Davidson's essentials of medicine. Innes JA (ed). Edinburgh: Churchill Livingstone Elsevier, 2009 (xii + 863 pp $59.95) ISBN 978 0 7020 3001 7.
Diagnosing skin diseases. A diagnostic tool and educational resource for pediatricians and primary caregivers (CD-ROM). Murray E. Winnipeg: PixSoft Inc, 2009 ($74.45) ISBN 978 0 9783017 0 5.
Essential medical imaging. Gibson RN, Mitchell A (eds). Cambridge: Cambridge University Press, 2009 (x + 294 pp + CD ROM $110.00) ISBN 978 0 521 70911 8.
Ethics and law for the health professions. Kerridge I, Lowe M, Stewart C. Sydney: Federation Press, 2009 (xxiii + 895 pp $69.90) ISBN 978 1 86287 730 6.
Ethics in practice: moral theory and the professions. Alexandra A, Miller S. Sydney: UNSW Press, 2009 (ix + 278 pp $49.95) ISBN 978 1 74223 030 6.
Fast facts: contraception. Gebbie AE, O'Connell White K. Oxford: Health Press, 2009 (115 pp $13.15) ISBN 978 1 905832 50 7.
Fighting cancer with knowledge & hope. A guide for patients, families & health care providers. Frank RC. Melbourne: Black Inc, 2009 (xviii + 257 pp $29.95) ISBN 978 1 86395 434 1.
Foodborne disease outbreaks: guidelines for investigation and control. Geneva: World Health Organization, 2008 (vi + 146 pp $31.45) ISBN 978 92 4 154722 2.
Global tuberculosis control 2009. Epidemiology strategy financing. Geneva: World Health Organization, 2009 (vii + 303 pp $56.40) ISBN 978 92 4 156380 0.
Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence. Geneva: World Health Organization, 2009 (xviii + 111 pp $37.70) ISBN 978 92 4 154754 3.
Hand surgery. Warwick D, Dunn R, Melikyan E, Vadher J. Oxford: Oxford University Press, 2009 (xxiv + 635 pp $170.00) ISBN 978 0 19 922723 5.
Health technology assessment and health policy-making in Europe. Current status, challenges and potential. Garrido MV, Kristensen FB, Nielsen CP, Busse R. Copenhagen: European Observatory on Health Systems and Policies, 2008 (xiv + 181 pp $80.95) ISBN 978 9 289 042932.
History of the introduction of lithium into medicine and psychiatry. Birth of modern psychopharmacology 1949. Schioldann J. Adelaide: Adelaide Academic Press, 2009 (xiv + 362 pp $135.00) ISBN 978 0 9805477 0 2.
How to succeed at medical school. An essential guide to learning. Evans D, Brown J. Oxford: BMJ Books, 2009 (ix + 179 pp $42.95) ISBN 978 1 4051 5139 9.
Human rights, health and poverty reduction strategies. Geneva: World Health Organization, 2009 (73 pp $39.75) ISBN 978 9241 563741.
I just want to be happy. Preventing and tackling depression. Rowe L, Bennett D, Tonge B. Sydney: Allen & Unwin, 2009 (xv + 215 pp $27.99) ISBN 978 1 74175 530 5.
Implementing the WHO Stop TB Strategy. A handbook for national tuberculosis control programmes. Geneva: World Health Organization, 2009 (xii + 184 pp $54.85) ISBN 978 92 4 154667 6.
Infection control. A psychosocial approach to changing practice. Elliot P (ed). Oxford: Radcliffe Publishing, 2009 (xvi + 264 pp $69.00) ISBN 978 1 85775 612 8.
Medical murder. Disturbing cases of doctors who kill. Kaplan RM. Sydney: Allen & Unwin, 2009 (x + 222 pp $29.99) ISBN 978 1 74175 610 4.
Medical toxicology of natural substances. Foods, fungi, medicinal herbs, plants, and venomous animals. Barceloux DG. New Jersey: John Wiley & Sons, 2008 (xxi + 1157 pp $320.00) ISBN 978 0 471 72761 3.
Mental health aspects of women's reproductive health. A global review of the literature. Geneva: World Health Organization, 2009 (x + 168 pp $39.95) ISBN 978 92 4 156356 7.
My story. Aboriginal and Torres Strait Islander women sharing their experiences of breast cancer (DVD). Val Alberts (Project Coordinator). Sydney: National Breast and Ovarian Cancer Centre, 2008.
Neural blockade in clinical anesthesia and pain medicine. Cousins MJ, Carr DB, Horlocker TT, Bridenbaugh PO (eds). Philadelphia: Wolters Kluwer, 2009 (xxi + 1306 pp $394.90) ISBN 978 0 7817 7388 1.
Obsessive–compulsive disorder. Rachman S, De Silva P. Oxford: Oxford University Press, 2009 (xi + 184 pp $32.95) ISBN 978 0 19 956177 3.
Older persons in emergencies: an active ageing perspective. Geneva: World Health Organization, 2008 (iv + 43 pp $22.00) ISBN 978 92 4 156364 2.
Pediatric epilepsy case studies. From infancy and childhood through adolescence. Chapman K, Rho JM (eds). Florida: CRC Press, 2009 (xxv + 293 pp $115.00) ISBN 978 1 4200 8342 2.
Preventive cardiology: a practical manual. Jennings C, Mead A, Jones J, Holden A, Connolly S, Kotseva K, Wood D. Oxford: Oxford University Press, 2009 (xvi + 218 pp $46.20) ISBN 978 0 19 923630 5.
Psychiatric ethics. Bloch S, Green SA (eds). Oxford: Oxford University Press, 2009 (xiv + 538 pp $59.95) ISBN 978 0 19 923431 8.
Quality dementia care series. Younger onset dementia — a practical guide. Hodges JR, Gregory C, McKinnon C, Kelso W, Mioshi E, Piguet O. Canberra: Alzheimer's Australia, 2009 (38 pp).
Recovery from depression. Using the narrative approach: a guide for doctors, complementary therapists and mental health professionals. Ridge D. London: Footprint Books, 2009 (208 pp $48.95) ISBN 978 1 84310 575 6.
Supporting Indigenous researchers: a practical guide for supervisors. Laycock A, Walker D, Harrison N, Brands J. Canberra: Cooperative Centre for Aboriginal Health, 2009 (x + 180 pp Free) ISBN 978 0 7340 4062 6.
Tom Wills. His spectacular rise and tragic fall. de Moore G. Sydney: Allen & Unwin, 2008 (xi + 336 pp $32.95) ISBN 978 1 74175 499 5.
Waiting room. A memoir. Carey G. Melbourne: Scribe, 2009 (217 pp $29.95) ISBN 978 1 921372 62 9.