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## GP planning in a pandemic\*

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## Background

The 1918–19 influenza pandemic killed more than 10 000 Australians.<sup>1</sup> Extrapolating these mortality rates to the current Australian population indicates that an estimated 200 000 people would be killed by a similar influenza pandemic today.<sup>2</sup> The other estimated effects are shown in Box 1.<sup>3</sup>

### Box 1: Potential impact of pandemic influenza if we are not prepared

- > 40% of the population (8.5 million Australians) would show clinical signs of infection and 2.4% of those affected would die (around 200 000 people)
- > 50% of the population may not go to work at the peak of the pandemic
- > several waves of infection, each lasting up to 12 weeks, could occur, with disruption to services that could last as long as 2 years

Human-to-human transmission has been implicated in up to 25% of cases of H5N1 avian influenza. With a mortality rate of 62%, it is fortunate that sustained human-to-human transmission has not yet occurred.<sup>4</sup> With the recent outbreak of H1N1 swine influenza, the need for general practitioners (GPs) to be prepared has escalated.

## Why do GPs need to be prepared?

There are a number of good reasons why GPs will need to be prepared for pandemic influenza (PI).<sup>5,6</sup> These include: workload/business continuity, medico-legal, ethical and personal reasons.

### Business continuity

In a pandemic outbreak of influenza, one in four people within the community may be affected. This will have a significant impact on the workload of the general practice, which may have a similar number of staff absent for the same reasons. In addition, some staff may choose not to come to work. Without a number of changes, it will not be feasible for GPs to carry on as usual, as well as dealing with the increased workload.<sup>5,7</sup> Most patients contracting PI will be urged to stay at home.<sup>3</sup> Many will likely contact their GP and some will want to see them, even when alternative arrangements are available, for example flu clinics. Conservative estimates suggest that there would be an additional 20 GP consultations per week if every GP in Australia was working and only 50% of those affected saw their GP.<sup>3,7,8</sup>

To cope with the increased workload, GPs will need to:

- > review the practice's infrastructure and staff
- > reduce/cancel non-clinical activities, including meetings and teaching
- > consider offering some consultations by phone and bolstering telephone triage
- > discuss amalgamating or teaming up with neighbouring practices
- > delegate, alter, share or defer some tasks, for example prevention visits, minor surgery, routine home visits, chronic disease management visits.<sup>5-7</sup>

### Medico-legal

There is no guarantee that emergency powers legislation will extend to providing (or altering) the medico-legal circumstances of clinical practice.<sup>9</sup> Practice staff will expect a safe work place. Similarly, any delegation of clinical tasks will need to be accompanied by appropriate training and support.<sup>6,10</sup>

\* **Editor's Note:** Pandemic planning is a continuing priority action of governments. Most planning anticipates new diseases that are highly infectious and associated with high morbidity and mortality. Whilst the current H1N1 pandemic is less severe than forms assumed in pandemic planning, current experience will be incorporated into future planning.

## Ethical

Practices will need to recognise that there may be a range of views, conflicting values and possible stigmatisation associated with working during a pandemic.<sup>11-13</sup> Does the GP have a duty of care to continue working in the face of significant personal risk of harm? This has generated significant debate in the literature, with some arguing that 'professional codes of conduct do not insist on normal working when there is personal risk'.<sup>14</sup> Most GPs themselves indicate that they would keep working,<sup>10,15</sup> which is what happened in the SARS outbreak<sup>16</sup> and previous pandemics. Nevertheless, concern about being adequately protected against PI will likely influence their preparedness to keep working. A recent Australian survey found that less than half of a sample of hospital health care workers believed that antivirals like oseltamavir would protect them against PI.<sup>17</sup>

## Personal

In the event of a pandemic, GPs have expressed a strong sense of moral obligation to look after their families and their patients and staff, provided that they can reduce the risk of PI to themselves and their families.<sup>10,14</sup> The importance of adequate and early prophylaxis is highlighted in a recent modelling study. The investigators found that, providing antivirals are distributed to contacts before exposure in the early stages of a pandemic, the probability of an outbreak can be considerably reduced.<sup>18</sup>

Unfortunately, most Australian general practices are not currently prepared for PI;<sup>15,19</sup> some are even confident that it would not greatly affect their work.<sup>12</sup>

## Where can GPs get good information?

The Australian Government has been active in PI planning. The Australian Health Management Plan for Pandemic Influenza 2008<sup>3</sup> includes a number of annexes, including one for primary care. In addition, there are published checklists to assist GPs with planning<sup>5,6,20</sup> and a range of web sites, both Australian (<http://www.flupandemic.gov.au>; <http://www.pandemic.net.au/resources.html>) and international (WHO <http://www.who.int/csr/disease/influenza/pandemic/en/>; CDC <http://www.cdc.gov/flu/Pandemic/>). These documents cover the major issues, including business continuity, communication, triaging of patients, infection control and quarantine, clinical management, use of antivirals, vaccination and planning for particular needs. The case study (at the end of the article) provides an outline of some of the 'on-the-ground' issues that practices may face.

## What is the GP's main role during a pandemic?

GPs will have a key role in keeping the primary health care system functioning.<sup>5,6,20</sup> They will need to prioritise their workload so that they can continue to manage patients with acute and chronic illnesses, in addition to providing health-related advice. Patients will ask their GP for advice on how to manage both suspected and actual PI cases at home. GPs will also need to be advocates for public health strategies to minimise the spread of PI,<sup>3,7</sup> especially given both the limited pandemic awareness and the variable likely adherence by the public to using masks and social distancing techniques.<sup>21,22</sup>

## What issues need further discussion, planning and resolution?

### Protection of frontline workers and their families

If Australian GPs and their staff are going to have an estimated extra 600 000 consultations per week, they will be working hard to keep up with the demand. They will want immediate assurance that there will be access to antiviral medication, vaccinations (when and if available) and national personal protective equipment (PPE) stockpiles.<sup>19</sup> They need to be confident that they will be able to go home to their family and not pass on the disease (see Box 2).<sup>10</sup>

### Box 2: From The Advertiser

South Australia's first (death from influenza in 2007) – a 48-year-old receptionist who died at the Royal Adelaide Hospital on Tuesday – worked at a doctor's surgery in Adelaide's northern suburbs. (The Advertiser 29 August 2007)

Masks for personal protection need to be fit-tested for individual face shapes, to choose the make that provides an adequate seal during normal movements (see <http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/safeuse-dvd-1> for a demonstration of how to fit PPE). The testing process takes about 30 minutes and requires a sealed room and specialised equipment. In the SARS outbreak over 97% of GPs wore masks.<sup>23</sup> In order for masks to be immediately accessible, this fit-testing needs to occur before the start of a pandemic.

### Cost of preparation and providing medical care during a pandemic

Clarification is needed on how and when PPE will be provided in the early stages of PI. One recent estimate of the cost of PPE materials for a solo GP and practice nurse was \$644 per week.<sup>24</sup> There will be other significant costs associated with modifying waiting rooms and disposing of a large volume of potentially infectious materials.<sup>25</sup>

The Medicare Benefits Schedule (MBS) currently pays GPs primarily for face-to-face contact based on time and the complexity of consultations. The provision of telephone consultations, practice nurse consults, public health data gathering and mass immunisation campaigns may need to be written into the MBS to provide income in place of deferred activities such as scheduled chronic disease management. Some GPs will need to consider the costs if they decide to close their practice(s) during a pandemic. Patel and colleagues<sup>19</sup> have indicated a need to inject funds into hospital care and primary care preparedness simultaneously.

### Medico-legal issues

There is remaining uncertainty about a range of medico-legal issues,<sup>6,7</sup> including:

- > occupational health and safety and human resources (for example staff disability and death, paying absentee staff)<sup>26</sup>
- > duty of care and the choices regarding seeing versus not seeing patients<sup>14,27</sup>
- > indemnity coverage for alternative patient care strategies, including telephone consultations and those done by practice nurses.<sup>7</sup>

As employers, GPs need to know their responsibility to staff.<sup>14</sup> Can staff take unsanctioned leave or refuse to care for suspected influenza cases? Will WorkCover insure salaries of those staff who catch influenza? Can employees and insurance companies waive the need for a doctor to provide sick certification when medical resources will be under intense pressure? These questions and others are best answered prior to a pandemic. There is no discussion of the issues surrounding duty of care or indemnity in the most recent update of the Australian Health Management Plan for Pandemic Influenza, despite considerable concern among GPs.<sup>10,28</sup>

### Ethical: distribution of masks, antivirals and pandemic vaccine

The ethical framework in the Australian Health Management Plan for Pandemic Influenza discusses broad

principles rather than providing clear guidance for GPs. Timely access to medication for patients, particularly in rural areas, will depend on where stockpiles are located and how much will be entrusted to GPs. There are also uncertainties around the use of antiviral medication for practice staff and families. Similar clarification is also needed for the provision of masks, other PPE and vaccines, and whether the practice will be responsible for the rationing of use of these items. If the GPs do not have stock in hand, access to stock (PPE, antivirals, pandemic vaccine) will then become a vital issue. Secure storage near the practice, or in pharmacy or local/state government facilities, police stations etc., will need to be clearly decided and managed.

### Dealing with unknowns

Ongoing updating of GPs with clear, succinct, relevant and comprehensive information will be essential to enable doctors to continue to work and address many of the emerging issues, especially where there are a number of unknowns. During the SARS outbreak there were regular updates to doctors across Australia. The need to keep abreast of the pandemic as it unfolds will have to be built into the workload of staff. Practices will need regular internal briefings and meetings to review, among other matters, the availability of PPE stock, work rosters and triaging of patients. Other relevant information including patient outcomes and resources, hospital status and waiting times will also be needed.

### Summary

Pandemic planning is a complex logistical process that is continuing to evolve.<sup>19</sup> The current plans in South Australia have highlighted some of the issues outlined above, and will need ongoing review and updating. A primary care pandemic advisory committee is needed that can discuss options related to implementation of the primary care pandemic plan. Good planning needs to focus on the planning process and not just the production of a written document.<sup>19</sup> There is also an important role for the same committee to provide education, support and training for GPs and practice staff to facilitate their preparedness. The sooner a planning group involving all the relevant sectors is operating, the better prepared South Australia will be. General Practice SA Inc. (GPSA), the State Division coordinating group, is well placed to take up this role. Even if all the issues are not addressed beforehand, the discussion stage is needed prior to a pandemic rather than being sorted out on the run during such a crisis.

## Case study of pandemic planning in general practice

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Recently, two mock influenza pandemic exercises were coordinated in the Limestone Coast region of South Australia (SA): 'Exercise Hawk Flu' in a large general practice of 14 doctors in Mt Gambier, and 'Exercise Seagull' in a solo general practice in Robe. The aim was to provide realistic training and test the responses and coordination of staff and patients for an outbreak of pandemic influenza (PI). It gave the staff the opportunity to observe how potentially infected patients would flow through their service and to identify glitches and allow improvements to be made, with the main focus being on infection control.

The following insights were gained from these exercises:

### Infection control

- > Cough etiquette and respiratory hygiene should be exercised in all general practice clinics now to reduce the spread of seasonal influenza and to prepare patients for PI. Resources needed include: tissues, surgical masks, antimicrobial hand wash and hand washing sinks, foot-pedal flip-top bins to dispose of tissues in waiting rooms, and triage stations at the entrance to the clinic.
- > Patients are contagious for 24–48 hours before symptoms start, so upgraded infection control is necessary.
- > Patients, even children, were compliant during both exercises with wearing of surgical face masks in waiting rooms, and reported appreciation that efforts to reduce infection were in place.
- > Implementing social distancing rules to reduce cross-infection is important. In our exercises we placed a table in front of the reception area to deter patients from leaning on the reception desk. Chairs were placed 1 metre apart in waiting rooms.
- > The isolation, grouping and supervision of suspected PI patients needs to be carefully addressed to ensure that other patients are not compromised in the waiting room. In Exercise Hawk Flu there was a dedicated entrance to a separate waiting room. One consulting room was identified for seeing potentially infected patients, and was emptied of all unessential equipment to aid sterilisation between patients.
- > All signage relating to infection control practices and other staff/patient information needs to be clear, large enough to read and well positioned, and available in different languages if required. Telephone reception staff should warn symptomatic patients that they will be expected to apply a surgical face mask and sterilise their hands on entering the clinic building.
- > A challenge for one of the GPs participating in Exercise Hawk Flu was the use of his stethoscope. Close proximity to his face was an issue for infection control as he was required to use the same stethoscope for each patient. In Exercise Seagull at Robe Community Health Centre, four stethoscopes were on hand to assess patients, and these were cleaned with detergent wipes in between patients.
- > Waste disposal presented a huge challenge for both exercises. During Exercise Seagull it was estimated that two large wheelie bins would be required daily to dispose of personal protective equipment (PPE) and other clinical wastes (a total of at least 10 extra full wheelie bins required per week in one solo general practice). Follow-up with local councils has been made to develop plans for how this extra waste would be disposed of during a real pandemic.
- > Promotion of the uptake of seasonal influenza vaccination is important. If a pandemic were to occur, staff who had received the annual (seasonal) flu vaccination would be combating only the new influenza virus as they would already have antibodies to protect against annual influenza.

### Personal protective equipment

- > All practice staff in close proximity to patients must be fit-tested with P2/N95 respiratory masks.
- > Practice staff need to be trained in the donning and doffing of PPE. With practice, each donning and doffing of gloves, masks, gowns and goggles took approximately 1.5 minutes during the exercises.
- > PPE must be worn correctly and staff must continually check each other's PPE for correct fit and wear.
- > An initial stockpile of 2 weeks supply of PPE is recommended for all general practices. Most PPE has a shelf life of 5 years.

### Staffing

- > General practices should review their staffing levels and staff roles, and determine whether there is a need for reassignment of some staff to deal with the increase in flu patients.
- > More staff would be required to triage patients who telephone or attend the practice. This would be a challenge in small practices.
- > All individuals and staff should be encouraged to develop their own immediate pandemic plans with regard to care of dependant minors and seniors, and decide whether they would be available to work during such a crisis.

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