Containing pandemic flu

What an influenza pandemic will mean for the UK

- High levels of illness
- Intense pressure on health services
- Disruption to many aspects of daily life
- Many deaths

Reduce impact through:

- Surveillance
- Diagnosis
- Antiviral drugs
- Vaccines (once they become available)
- Public health interventions

Virological surveillance

Year round global activity led by WHO, to:

- Monitor the evolution of flu viruses
- Inform recommendations for annual flu vaccine
- Detect the emergence of new or unusual viruses

National and International Surveillance

- WHO Global Influenza Surveillance network
- European Influenza Surveillance Network
- UK: Clinical and virological surveillance co-ordinated by the Health Protection Agency

Diagnosis

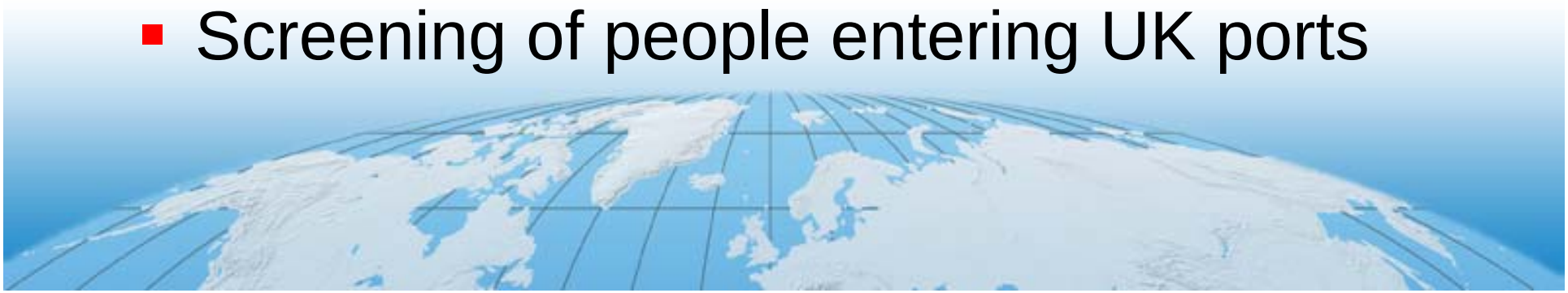
- Most often a clinical diagnosis
- Laboratory tests
  - molecular detection of virus in clinical specimens
  - culture of virus
  - serology
- Rapid ‘near patient’ tests – detect the presence of flu within 30 minutes – cannot determine the specific virus

Public health interventions

- Personal interventions
  - Basic measures to reduce the spread of infection
    - Hand washing: washing hands frequently with soap and water *reduces the spread of the virus from the hands to the face, or to others*
    - Respiratory hygiene: *covering the mouth and nose when coughing or sneezing; using a tissue when possible; disposing of dirty tissue promptly are carefully – bag and bin*
    - Avoiding non essential travel: *non attendance at large gatherings such as concerts, theatres, cinemas, sports arenas etc*

Possible population-wide interventions

- Travel restrictions
- Restrictions of mass public gatherings
- Schools closure
- Voluntary home isolation of cases
- Voluntary quarantine of contacts of known cases
- Screening of people entering UK ports



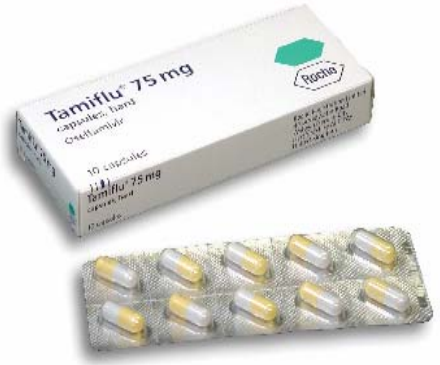
Antiviral drugs

Antiviral drugs

- Likely to be only major medical countermeasure available early in a pandemic
- Used in the absence of, or as an adjunct to vaccination

Antiviral drugs

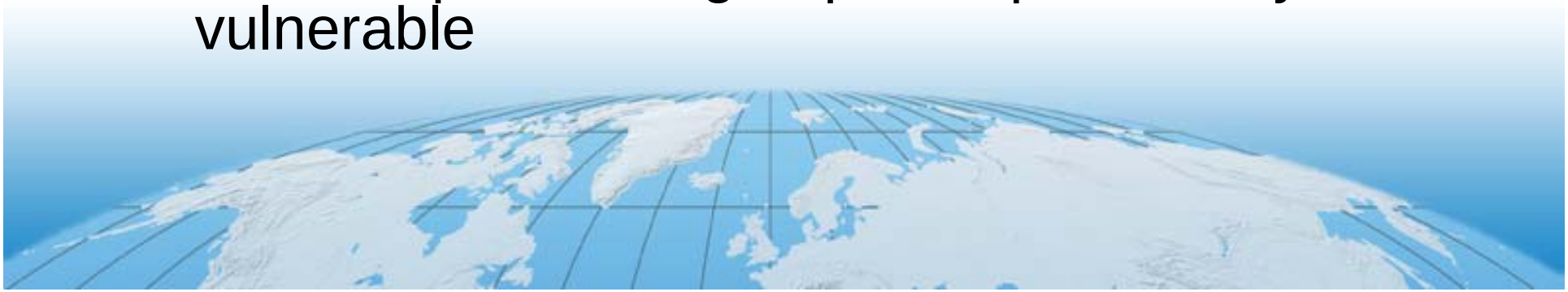
- UK building up a stockpile of 14.6 million courses
- Stockpile complete September 2006



Antiviral treatment

- Health workers - as a priority as they will have a higher risk of exposure to the virus
- Clinical risk groups - those in whom pandemic flu will be more serious
- General population

- Who is prioritised will partly depend on the pandemic virus and who it affects the most – for example which groups are particularly vulnerable



How do antiviral drugs work?

- Prevent the flu virus from reproducing
- Treatment can shorten the illness by a day and reduce hospitalisations by an estimated 50% (based on seasonal flu)
- To be effective, must be taken within 48 hours of the onset of flu symptoms

Treatment

- Healthcare workers will be prioritised for initial supplies of antivirals
- Antivirals will be predominantly for treatment of the ill
- There may be some limited use of antivirals as prophylaxis, if expert advice suggests this appropriate

Delivery of treatment

NHS will need to ensure:

- Patients with influenza like illness can access antivirals within 48 hours
- Patients with severe complications can be appropriately treated in hospital

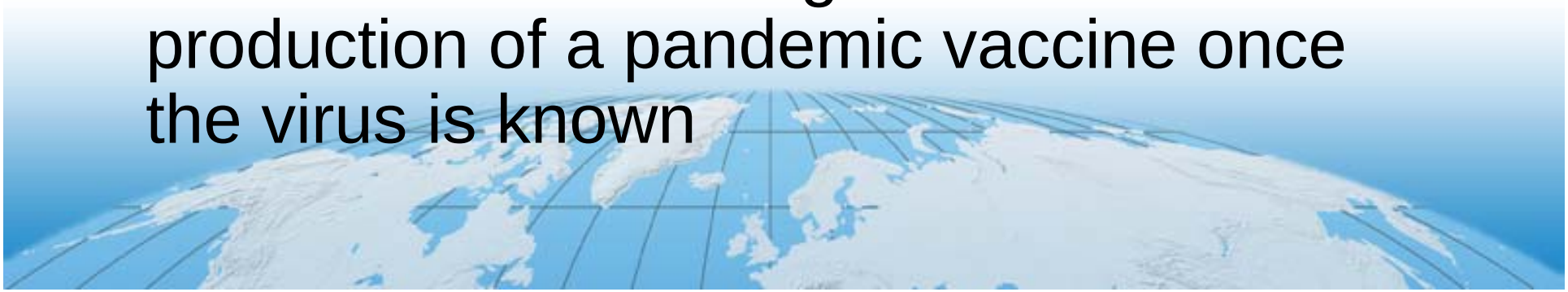
Influenza Vaccine

Is there a vaccine?

- Because the virus will be new, there will be no vaccine ready to protect against pandemic flu
- A specific vaccine cannot be made until the virus has been identified
- Cannot be predicted in same way as ‘ordinary’ seasonal flu
- ‘Ordinary’ flu vaccine or past flu jab will not provide protection

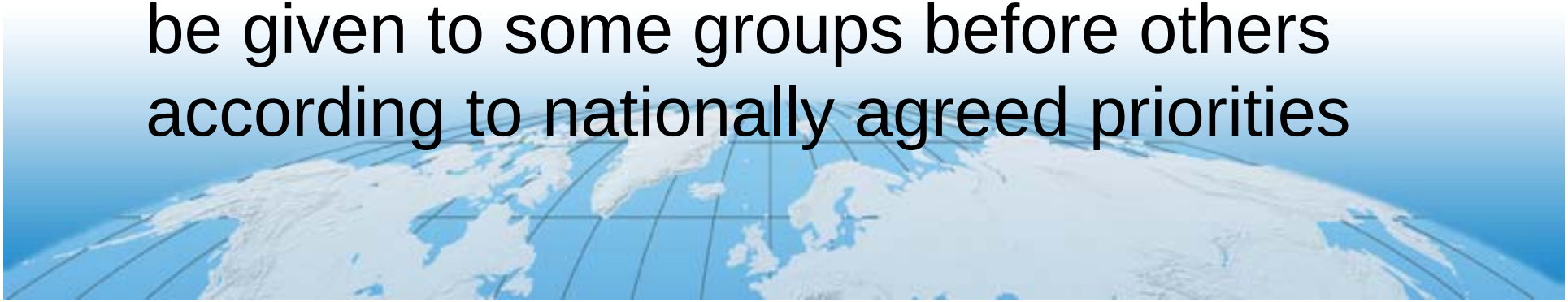
Vaccines

- Routine seasonal flu vaccines will provide little or no protection
- The new virus strain has to be identified
- New vaccine must be developed to match the pandemic strain of virus
- Will have important differences from routine flu vaccine
- Advance work is being done to facilitate production of a pandemic vaccine once the virus is known



Vaccines

- Four to six months to produce, possibly longer
- Unlikely to be available during the early stages
- When available, aim to immunise whole population as soon as possible
- As production will take time, vaccines will be given to some groups before others according to nationally agreed priorities



Vaccine – provisional priority groups

- Health care workers most at risk
- Clinical risk groups
- Institutional settings
- General population