NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Appraisal

Peramivir for treating influenza

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of peramivir within its marketing authorisation for treating influenza.

Background

Influenza is an acute respiratory illness caused by infection with influenza A and B viruses. It causes significant morbidity and increased mortality. Typical symptoms for uncomplicated influenza are cough, malaise, fever, chills, headache, nasal congestion, sore throat and aching muscles. However, symptoms can range from asymptomatic infection through respiratory illness (particularly bronchitis and pneumonia) to multi-system complications affecting the heart, lungs, brain, liver, kidneys and muscles. Influenza infection is usually self-limiting and lasts for 3–4 days, with some symptoms persisting for 1–2 weeks.

Older people, infants, people who might be immunosuppressed and people with chronic illnesses are more at risk of severe influenza, complications and hospitalisation associated with influenza. People living or working in residential care are at greater risk of infection. Influenza occurs in a seasonal pattern with outbreaks in the winter months, typically between December and March, however the overall burden is difficult to measure because many people do not access healthcare, and virological confirmation is very rarely performed[1]. In 2014, the peak weekly rate of GP consultations in England and Wales for influenza-like illness was 28.3 per 100,000 In the UK Surveillance of Severe Influenza System (USISS) sentinel hospital surveillance scheme, a total of 1,652 hospitalised confirmed influenza cases were reported across England during 2014 to 2015[2,3]. The average annual number of deaths attributable to influenza in England is estimated to range from 4 deaths per year to 14,000 deaths per year, with an average of around 8,000 deaths per year[4].

The treatment of influenza is mainly supportive, consisting of alleviation of symptoms and managing complications that may arise. NICE technology appraisal 168 recommends oseltamivir and zanamivir for the treatment of influenza in adults and children if: national surveillance schemes indicate that influenza virus A or B is circulating; the person is in an 'at-risk' group[i], and; the

[i] 'At risk' group - people who have one or more of the following: chronic respiratory disease (including asthma and chronic obstructive pulmonary disease), chronic heart disease, chronic renal disease, chronic liver disease, chronic neurological conditions, or diabetes mellitus. People aged 65 years+ and people who might be immunosuppressed are also defined as 'at-risk'

person has a 'flu-like illness' and can start treatment within 48 hours (or within 36 hours for zanamivir treatment in children) of the first sign of symptoms.

The technology

Peramivir (Rapivab, Seqirus Vaccines) is a neuraminidase inhibitor that is active against influenza A and B viruses. It prevents viral release from infected cells and subsequent infection of adjacent cells. It is administered intravenously.

Peramivir does not currently have a marketing authorisation in the UK for treating influenza. It has been studied in clinical trials compared with placebo and oseltamivir for treating adults with influenza.

Intervention(s)	Peramivir
Population(s)	Adults with influenza
Comparators	People in an 'at risk' group[i] • oseltamivir • zanamivir People not in an 'at risk' group[i] • no anti-viral treatment
Outcomes	The outcome measures to be considered include: • time to clinical resolution of influenza • length of influenza illness • time to return to normal activities • incidence of influenza-related complications • incidence of hospitalisations • duration of hospitalisation • incidence of antibiotic treated pneumonia • mortality • adverse effects of treatment • health-related quality of life • virological outcomes (viral shedding and viral load)

Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year. The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective.
Other considerations	If the evidence allows the following subgroup will be considered: • people treated in primary care Guidance will only be issued in accordance with the marketing authorisation Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.
Related NICE recommendations and NICE Pathways	Related Technology Appraisals: 'Amantadine, oseltamivir and zanamivir for the treatment of influenza' (2009). NICE technology appraisal TA168. Guidance on static list. 'Oseltamivir, amantadine (review) and zanamivir for the prophylaxis of influenza' (2008). NICE Technology Appraisal 158. Guidance on static list.
Related National Policy	Department of Health, 'NHS Outcomes Framework 2015-2016', Dec 2014. Domains 1-5. NHS England 'Manual for prescribed specialised services 2013/14', 2014. Chapter 130.

References

1 Adler et al. 'Incidence and risk factors for influenza-like-illness in the UK: online surveillance using Flusurvey' BMC Infectious Diseases 2014, 14:232. Accessed August 2015

2 Public Health England (2015) 'Surveillance of influenza and other respiratory viruses in the United Kingdom: winter 2014 to 2015'. Accessed August 2015.

3 Royal College of General Practitioners (2015) 'RCGP Research and Surveillance Centre'. Accessed August 2015. Accessed August 2015.

4 Public Health England (2014) 'Public Health England and the NHS prepare for unpredictable flu season'. Accessed August 2015.