NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Proposed Health Technology Appraisal

Intravenous zanamivir for treating influenza in hospital

Draft scope (pre-referral)

Draft remit/appraisal objective

To appraise the clinical and cost effectiveness of intravenous zanamivir within its marketing authorisation for treating influenza in hospital.

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 the UK Severe Influenza Surveillance System (USISS) sentinel hospital surveillance scheme, a total of 2,745 hospitalised confirmed influenza cases were reported across England during 2015 to 2016[2]. Estimates of the average annual number of deaths attributable to influenza in England range from 4 deaths per year to 14,000 deaths per year, with an average of around 8,000 deaths per year[3].

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 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.

[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'.

The technology

Intravenous zanamivir (Dectova, GlaxoSmithKline) 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.

Intravenous zanamivir does not currently have a marketing authorisation in the UK for treating influenza in hospital. It has been studied in clinical trials compared with oral oseltamivir for treating hospitalised adolescents and adults (16 years and older) with influenza.

Zanamivir inhalation powder has a UK marketing authorisation for the treatment of influenza in people 5 years and older who present with symptoms typical of influenza, when influenza is circulating in the community.

Intervention(s)	Intravenous zanamivir
Population(s)	People hospitalised with influenza
Comparators	People in an 'at risk' group[i]: • oseltamivir • zanamivir inhalation powder 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 • duration of hospitalisation • incidence of antibiotic treated complications • mortality • adverse effects of treatment • health-related quality of life • virological outcomes
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	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, oxeltamivir and zanamivir for the treatment of influenza' (2009). NICE Technology Appraisal TA168. Static list. 'Oseltamivir, amantadine (review) and zanamivir for the prophylaxis of influenza' (2008). NICE Technology Appraisal 158. Static list. Appraisals in development: 'Peramivir for treating influenza' NICE technology appraisals guidance [ID828]. Publication date to be confirmed.
Related National Policy	NHS England (2017/18) Manual for prescribed specialised services. Chapter 130 Specialist services for children with infectious diseases https://www.england.nhs.uk/wp-content/uploads/2017/10/prescribed-specialised-services-manual-2.pdf Department of Health, NHS Outcomes Framework 2016-2017 (published 2016): Domains 1, 3 and 4. https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017

Questions for consultation

Have all relevant comparators for intravenous zanamivir been included in the scope?
Which treatments are considered to be established clinical practice in the NHS for treating influenza in hospital?

Would treatment for influenza in hospital differ between patients in an 'at risk' group and those not in an 'at risk' group?
Where is intravenous zanamivir likely to be used in the pathway for treating influenza in hospital?

Are the outcomes listed appropriate?

Are there any subgroups of people in whom intravenous zanamivir is expected to be more clinically effective and cost effective or other groups that should be examined separately?

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which intravenous zanamivir will be licensed;

- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by making it more difficult in practice for a specific group to access the technology;

- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the Committee to identify and consider such impacts.

Do you consider intravenous zanamivir to be innovative in its potential to make a significant and substantial impact on health-related benefits and how it might improve the way that current need is met (is this a 'step-change' in the management of the condition)?

Do you consider that the use of intravenous zanamivir can result in any potential significant and substantial health-related benefits that are unlikely to be included in the QALY calculation?

Please identify the nature of the data which you understand to be available to enable the Appraisal Committee to take account of these benefits.

To help NICE prioritise topics for additional adoption support, do you consider that there will be any barriers to adoption of this technology into practice? If yes, please describe briefly.

NICE intends to appraise this technology through its Single Technology Appraisal (STA) Process. We welcome comments on the appropriateness of appraising this topic through this process. (Information on the Institute's Technology Appraisal processes is available at http://www.nice.org.uk/article/pmg19/chapter/1-Introduction).

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 October 2017

[2] Public Health England (2016) 'Surveillance of influenza and other respiratory viruses in the United Kingdom: winter 2015 to 2016'. Accessed October 2017.

[3] Public Health England (2014) 'Public Health England and the NHS prepare for unpredictable flu season'. Accessed October 2017.

