

Public Health Evidence Report Following Engagement Activity

This form is to be completed by the Policy Working Groups Public Health Lead if stakeholders identify potential new evidence during policy development engagement activities. The Public Health Lead will assess the evidence raised to against the Population, Intervention, Comparator and Outcome (PICO) criteria and will record the studies in the appropriate boxes in the '*Outcome for studies suggested during engagement activities*' section of this form. In cases where newly identified evidence has a material impact please return the completed form to the Clinical Effectiveness Team (CET).

URN	<u>2111</u>
Policy title:	Nebulised liposomal amikacin for the treatment of non-tuberculous mycobacterial pulmonary disease caused by mycobacterium avium complex refractory to current treatment options (adults and post pubescent children)
CRG:	<u>Respiratory</u>
NPOC:	<u>Internal Medicine</u>
Engagement activity	
Date	23.3.22

Description of comments during engagement (If studies have been suggested please provide a list of references)	<p>Papers suggested by consultees:</p> <ul style="list-style-type: none"> • Griffith DE et al. Am J Respir Crit Care Med. 2006 Oct 15;174(8):928–34; • Jenkins PA et al. Thorax. 2008 Jul 1;63(7):627–34; Pan S-W et al. 2017 Sep 15;65(6):927–34; • Park HY, Chest. 2016 Dec;150(6):1222–32. • Chalmers JD et al. Eur Respir Rev. 2021 Jul 20;30(161):210010 • Van Ingen J, et al Expert Review of Respiratory Medicine, 2021 Oct, Vol. 15:1387-1401 • Pan S-W et al. Clinical Infectious Diseases 2017 Sep 15;65(6):927–34; • Ito Y et al. Int J Tuberc Lung Dis. 2012;16(3):408–14.
Action taken by Public Health lead	Five papers reviewed as outlined below. Two not considered as before 2011

Outcome for studies suggested during engagement activities	
1. Evidence already identified during the evidence review	

2. New evidence identified by stakeholders that does not fall within PICO and search methodology

1. Chalmers et al 2021

A review paper of what MAC is and how Nebulised liposomal amikacin works. **No original research. No new epidemiology.**

2. Van Ingen 2021

Review article. Reinforces aspects of management difficulties in treating MAC. Reviews use of Nebulised liposomal amikacin. **No original research. No new epidemiology**

3. Pan 2017

126 patients in Taiwan with MAC-LD from 2011 to 2016. Paper evaluated predictors of persistent culture-positivity for MAC and impact on radiographic deterioration. No information on Nebulised liposomal amikacin use. Predictors of persistent infection found to be low BMI, radiographic nodular-bronchiectatic pattern, and high acid-fast bacilli smear grade. **No new evidence on Nebulised liposomal amikacin. Provides some background context for treatment outcomes of MAC without Nebulised liposomal amikacin .**

4. Ito et al 2012

Japanese retrospective study of 164 patients with pulmonary MAC disease between 1999 and 2005 and followed for 5 years. None of the patients received Nebulised liposomal amikacin. Mean age was 66.0 ± 11.2 years at diagnosis and females were 56.7% of total. At least one comorbid illness present in 134 patients. 5-year mortality 28.0%. 117 patients with microbiological outcomes: 54 treated. 24 not treated and no culture conversion; 39 not treated and had culture conversion. Mortality rate 33.3% for untreated chronic MAC patients and 22.2% for treated MAC patients ($P = 0.30$). Independent factors for 5-year mortality were high Charlson comorbidity and presence of cavitory lesions. **No new evidence on Nebulised liposomal amikacin. Provides some background context for treatment outcomes of MAC without Nebulised liposomal amikacin.**

5. Park et al 2016

South Korean study. Treatment outcomes and spirometry data on 358 patients diagnosed with

	<p>NTM-LD between January 1999 and November 2011. Divided into three groups: observed without treatment, treatment success, and treatment failed. No information provided on what specific treatment people were on. The change of lung function was variable over a median 5-year follow-up period. Treatment failure was associated with a substantial decline in lung function in NTM-LD. No new evidence on Nebulised liposomal amikacin. No new epidemiology.</p>
<p>3.New evidence identified by stakeholders that falls within PICO and search methodology but does not materially affect the conclusions of the existing evidence review</p>	
<p>4.New evidence identified by stakeholders that falls within PICO and search methodology, that does materially affect the conclusions of the existing evidence review. Updated evidence review to be undertaken (to be agreed with CET)</p>	

<p>Completed by:</p>	<p>Consultant in Public Health, Public Health lead on Respiratory CRG</p>
<p>Date:</p>	<p>23.2.22</p>