

National Institute for Health and Clinical Excellence

PATIENT SAFETY PILOT ADVISORY COMMITTEE

Prevention of Ventilator Associated Pneumonia

Specialist adviser questionnaire responses

Intervention A – Prophylactic Antibiotics

Specialist Adviser name	Comments
	Q1) In your opinion are prophylactic antibiotics efficacious in reducing the risk of VAP?
John Carter	encourages development of resistant organisms. no evidence reduces incidence VAP
Angela Galloway	Yes in the context of selective decontamination (SDD) - not systemic prophylaxis alone
Clive Graham	The best data for this strategy comes from using a combination of systemic and oral antibiotics however we do not know the cost effectiveness of this approach, what effect it has on antibiotic resistance rates, the duration of therapy to give and who is likely to benefit most. It probably does have a role in a limited number of patients but we need to define this group better and improve our assessments of outcome. Greater use of antibiotics is counter-intuitive given that we spend much of our time discontinuing antibiotics to prevent the emergence of resistance and reduce the incidence of antibiotic associated diarrhoea.
Les Gemmel	Using antibiotics via the iv route alone may encourage overgrowth of resistant bacteria. There is evidence for the combination of oral, topical and pulsed iv usage may be beneficial, such as SDD
Peter MacNaughton	If this is meant to be Selective Decontamination of the Digestive tract (SDD) then while there is evidence from outside UK that it is effective there is concern about risks of resistance.
Rachel Binks	If care bundles (head of bed elevation etc) are used, there should be no need. We use closed circuit suction catheters, disposable tubing and rarely 'break the circuit' so are as clean as we can be. If patients still get VAP's, it is unlikely that prophylactic antibiotics will help - they will do more harm than good unless there is clinical evidence of infection.
Robert Spencer	There has been much debate centered around the use of SDD, but without convincing evidence that it works in terms of improved morbidity/mortality, decreased length of stay. The original study was performed on previously young and fit trauma patients. A far cry from the average ICU patient we see day-to-day.

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Roop Kishen	Prophylactic antibiotics cannot be targetted to a particular infective organism; moreover, in the critically ill, apart from not being of value, they only increase the likelihood of causing secondary infections from indigenous organisms as well as increasing likelihood of causing emergence of resistant species.
Tom Evans	No evidence base to support use. Danger of drug reactions/selection of resistant microbes
Vanessa Gibson	The evidence regarding prophylactic antibiotics is inconclusive and there are concerns about resistant bacteria, costs etc
Q2) In your opinion, should prophylactic antibiotics always be used? (In this context, "always" allows clinical exceptions)	
Angela Galloway	Prophylaxis as part of SDD should be considered in patients who are likely to be ventilated for 48hrs or more, to prevent ventilator associated pneumonia(VAP).
Rachel Binks	Increases resistance and C. diff rates
Roop Kishen	There is no evidence that prophylactic antibiotics reduce VAP
Q3) In your experience, is there controversy or uncertainty about the efficacy of prophylactic antibiotics in preventing VAP?	
Angela Galloway	The data for the use of SDD is very clear. Individuals are sceptical as they don't believe the evidence
Clive Graham	There are broadly 2 groups both with strongly held views as to the effectiveness of this intervention
Peter MacNaughton	As there is no gold standard for the diagnosis of pneumonia results from trials should demonstrate benefits with hard endpoints (eg mortality, duration of ventilation etc) which have not been established. Trials showing benefit (in terms of VAP reduction) have come from countries with low incidence of MRSA (eg Holland) and of questionable relevance to UK where MRSA VAP common.
Rachel Binks	The VAP rate is very low and we don't use prophylactic antibiotics
Roop Kishen	Little evidence of their efficacy in VAP
Q5) If prophylactic antibiotics were recommended for routine use, what do you think the obstacles would be to its introduction?	
Milind Khare	Concern over the emergence of antibiotic-resistant organisms
Clive Graham	A number of the regimens that are recommended for systemic prophylaxis use antibiotics that are currently being actively discouraged due to the problem of Clostridium difficile. Have the appropriate regimens been fully costed and are they active against the current common causes of VAP (for example many American Units have many cases of MRSA causing VAP, this is not covered by the published regimens)
Roop Kishen	There is no evidence that in preventing VAP, prophylactic antibiotics are of any use. So their use is not widespread (appropriately so)
Tom Evans	No evidence base

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Vanessa Gibson	Also cost would be an obstacle