

# Príomhtheachtaireachtaí d'ordaitheoirí ospidéil

## Cad í an fhadhb?

Is rud coitianta agus fadhb laethúil é baictéir atá frithsheasmhach in aghaidh antaibheathach in ospidéal ar fud na hEorpa (1).

D'fhéadfadh mí-úsáid antaibheathach a bheith mar bhonn le coilíniú nó ionfhabhtú othar le baictéir atá frithsheasmhach in aghaidh antaibheathach, cosúil le *Staphylococcus aureus* atá frithsheasmhach in aghaidh meiticilline (MRSA), *enterococci* atá frithsheasmhach in aghaidh vancaimícine (VRE) agus bachaillíní ardfhrithsheasmhacha Gram-dhiúltacha (2-3).

Is minic a luaitear mí-úsáid antaibheathach le teagmhas méadaithe d'ionfhabhtuithe *Clostridium difficile* (4-5).

Is baol do shábháilteacht othar in ospidéal é forbairt, roghnú agus scaipeadh baictéar frithsheasmhach ar na cúiseanna seo a leanas:

- Bíonn ionfhabhtuithe le baictéir atá frithsheasmhach in aghaidh antaibheathach mar bhonn le galracht agus básmaireacht mhéadaithe i measc othar, mar aon le tréimhse níos faide a chaitheamh san ospidéal (6-7).
- Is minic a bhíonn frithsheasmhacht in aghaidh antaibheathach mar bhonn le moill ar theiripe antaibheathach chuí (8).
- Comhcheanglaítear teiripe antaibheathach mhíchúí nó mhoillithe in othair a bhfuil ionfhabhtuithe tromchúiseacha acu le torthaí níos measa d'othair agus bás uaireanta (9-11).
- Tá an fhorbairt reatha ar antaibheathaigh nua teoranta agus, má leanann méadú ag teacht ar fhrithsheasmhacht in aghaidh antaibheathach, ní bheidh antaibheathaigh éifeachtúla ar bith ann le haghaidh cóireála (12).

## Cén chaoi a chuireann úsáid antaibheathach leis an bhfadhb?

Tá seans maith ann go dtabharfar antaibheathach d'othair a bhíonn san ospidéal (13) agus d'fhéadfadh 50% den úsáid a bhaintear as antaibheathaigh in ospidéal a bhí míchuí (4, 14);

Áirítear mí-úsáid antaibheathach in ospidéal ar cheann de na príomhfhachtóirí atá mar bhonn le forbairt frithsheasmhachta in aghaidh antaibheathach (15-17);

D'fhéadfaí na nithe seo a leanas a áireamh i mí-úsáid antaibheathach (18):

- Nuair a thugtar antaibheathaigh ar oideas go neamhriachtanach;

- Nuair a bhíonn moill ar dháileadh antaibheathach ar othair a bhfuil tinneas criticiúil orthu;
- Nuair atá speictream na teiripe antaibheathach róchúng nó róleathan;
- Nuair atá an dáileog antaibheathaigh ró-íseal nó ró-ard i gcomparáid lena bhfuil sonraithe don othar;
- Nuair atá tréimhse na cóireála antaibheathach róghearr nó rófhada;
- Nuair nach ndéantar an chóireáil antaibheathach á sruthlíniú le sonraí an tsaothráin mhicribhitheolaíochta nuair a bhíonn siad ar fáil.

## Cén fáth ar cheart tacú le húsáid chiallmhar antaibheathach? é n fáth ar cheart tacú le húsáid chiallmhar antaibheathach?

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D'fhéadfadh úsáid chiallmhar antaibheathach cosc a chur ar fhorbairt agus ar roghnú baictéar atá frithsheasmhach in aghaidh antaibheathach (4, 17, 19-21).

Is léir trí úsáid antaibheathach a laghdú gur féidir teagmhas ionfhabhtuithe *Clostridium difficile* a laghdú (4, 19, 22).

## Conas is féidir úsáid chiallmhar antaibheathach a chur chun cinn?

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D'fhéadfadh straitéisí ilghnéitheacha a áiríonn úsáid a bhaint as oideachas leanúnach, treoirínite agus beartais um antaibheathaigh in ospidéal fianaise-bhunaithe, bearta sriantacha agus comhairliúcháin le lianna um ghalar tógálach, micribhitheolaithe agus cógaiseoirí, a bheith mar bhonn le cleachtais níos fearr maidir le hordú antaibheathach agus frithsheasmhacht laghdaithe in aghaidh antaibheathach (4, 19, 23).

- Is léir go bhfuil faisnéis úsáideach le fáil ó mhonatóiriú a dhéanamh ar fhrithsheasmhacht ospidéal in aghaidh antaibheathach agus sonraí ar úsáid antaibheathach le teiripe antaibheathach eimpíreach a threorú in othair atá go dona tinn (24)
- Baineann uainiú ceart agus tréimhse cheart próifíolacsais antaibheathach do mháinliacht le riosca níos ísle d'ionfhabhtuithe ag suíomh máinliachta (25) agus riosca níos ísle d'fhorbairt baictéar atá frithsheasmhach in aghaidh antaibheathach (26)
- Is léir ó staidéar atá déanta, i gcás táscairí áirithe, gur féidir tréimhsí cóireála níos giorra seachas níos faide a ordú gan mórán difríochtaí a bheith i riocht na n-othar agus tá sé seo luaite freisin le minicíochtaí níos ísle d'fhrithsheasmhacht in aghaidh antaibheathach (15, 27-28).

- Modh amháin chun úsáid neamhriachtanach antaibheathach a laghdú é samplaí micribhitheolaíochta a thógáil roimh thús a chur le teiripe antaibheathach eimpíreach, torthaí saothrán a mhonatóiriú agus cóireáil antaibheathach a shruthlíniú bunaithe ar thorthaí saothrán (29).

1. [European Antimicrobial Resistance Surveillance System](#) . RIVM. 2009 [cited March 30, 2010].
2. Safdar N, Maki DG. The commonality of risk factors for nosocomial colonization and infection with antimicrobial-resistant *Staphylococcus aureus*, *enterococcus*, *gram-negative bacilli*, *Clostridium difficile*, and *Candida*. *Ann Intern Med*. 2002 Jun 4;136(11):834-44.
3. Tacconelli E, De Angelis G, Cataldo MA, Mantengoli E, Spanu T, Pan A, et al. Antibiotic usage and risk of colonization and infection with antibiotic-resistant bacteria: a hospital population-based study. *Antimicrob Agents Chemother*. 2009 Oct;53(10):4264-9.
4. Davey P, Brown E, Fenelon L, Finch R, Gould I, Hartman G, et al. Interventions to improve antibiotic prescribing practices for hospital inpatients. *Cochrane Database Syst Rev*. 2005(4):CD003543.
5. Bartlett JG, Onderdonk AB, Cisneros RL, Kasper DL. Clindamycin-associated colitis due to a toxin-producing species of *Clostridium* in hamsters. *J Infect Dis*. 1977 Nov;136(5):701-5.
6. Cosgrove SE, Carmeli Y. The impact of antimicrobial resistance on health and economic outcomes. *Clin Infect Dis*. 2003 Jun 1;36(11):1433-7.
7. Roberts RR, Hota B, Ahmad I, Scott RD, 2nd, Foster SD, Abbasi F, et al. Hospital and societal costs of antimicrobial-resistant infections in a Chicago teaching hospital: implications for antibiotic stewardship. *Clin Infect Dis*. 2009 Oct 15;49(8):1175-84.
8. Kollef MH, Sherman G, Ward S, Fraser VJ. Inadequate antimicrobial treatment of infections: a risk factor for hospital mortality among critically ill patients. *Chest*. 1999 Feb;115(2):462-74.
9. Ibrahim EH, Sherman G, Ward S, Fraser VJ, Kollef MH. The influence of inadequate antimicrobial treatment of bloodstream infections on patient outcomes in the ICU setting. *Chest*. 2000 Jul;118(1):146-55.
10. Lodise TP, McKinnon PS, Swiderski L, Rybak MJ. Outcomes analysis of delayed antibiotic treatment for hospital-acquired *Staphylococcus aureus* bacteremia. *Clin Infect Dis*. 2003 Jun 1;36(11):1418-23.
11. Alvarez-Lerma F. Modification of empiric antibiotic treatment in patients with pneumonia acquired in the intensive care unit. ICU-Acquired Pneumonia Study Group. *Intensive Care Med*. 1996 May;22(5):387-94.
12. ECDC, EMEA. ECDC/EMEA Joint Technical Report: The bacterial challenge: time to react 2009.
13. Ansari F, Erntell M, Goossens H, Davey P. The European surveillance of antimicrobial consumption (ESAC) point-prevalence survey of antibacterial use in 20 European hospitals in 2006. *Clin Infect Dis*. 2009 Nov 15;49(10):1496-504.
14. Willemsen I, Groenhuijzen A, Bogaers D, Stuurman A, van Keulen P, Kluytmans J. Appropriateness of antimicrobial therapy measured by repeated prevalence surveys. *Antimicrob Agents Chemother*. 2007 Mar;51(3):864-7.
15. Singh N, Yu VL. Rational empiric antibiotic prescription in the ICU. *Chest*.

2000 May;117(5):1496-9.

16. Lesch CA, Itokazu GS, Danziger LH, Weinstein RA. Multi-hospital analysis of antimicrobial usage and resistance trends. *Diagn Microbiol Infect Dis*. 2001 Nov;41(3):149-54.
17. Lepper PM, Grusa E, Reichl H, Hogel J, Trautmann M. Consumption of imipenem correlates with beta-lactam resistance in *Pseudomonas aeruginosa*. *Antimicrob Agents Chemother*. 2002 Sep;46(9):2920-5.
18. Gyssens IC, van den Broek PJ, Kullberg BJ, Hekster Y, van der Meer JW. Optimizing antimicrobial therapy. A method for antimicrobial drug use evaluation. *J Antimicrob Chemother*. 1992 Nov;30(5):724-7.
19. Carling P, Fung T, Killion A, Terrin N, Barza M. Favorable impact of a multidisciplinary antibiotic management program conducted during 7 years. *Infect Control Hosp Epidemiol*. 2003 Sep;24(9):699-706.
20. Bradley SJ, Wilson AL, Allen MC, Sher HA, Goldstone AH, Scott GM. The control of hyperendemic glycopeptide-resistant *Enterococcus* spp. on a haematology unit by changing antibiotic usage. *J Antimicrob Chemother*. 1999 Feb;43(2):261-6.
21. De Man P, Verhoeven BAN, Verbrugh HA, Vos MC, Van Den Anker JN. An antibiotic policy to prevent emergence of resistant bacilli. *Lancet*. 2000;355(9208):973-8.
22. Fowler S, Webber A, Cooper BS, Phimister A, Price K, Carter Y, et al. Successful use of feedback to improve antibiotic prescribing and reduce *Clostridium difficile* infection: a controlled interrupted time series. *J Antimicrob Chemother*. 2007 May;59(5):990-5.
23. Byl B, Clevenbergh P, Jacobs F, Struelens MJ, Zech F, Kentos A, et al. Impact of infectious diseases specialists and microbiological data on the appropriateness of antimicrobial therapy for bacteremia. *Clin Infect Dis*. 1999 Jul;29(1):60-6; discussion 7-8.
24. Beardsley JR, Williamson JC, Johnson JW, Ohl CA, Karchmer TB, Bowton DL. Using local microbiologic data to develop institution-specific guidelines for the treatment of hospital-acquired pneumonia. *Chest*. 2006 Sep;130(3):787-93.
25. Steinberg JP, Braun BI, Hellinger WC, Kusek L, Bozikis MR, Bush AJ, et al. Timing of antimicrobial prophylaxis and the risk of surgical site infections: results from the Trial to Reduce Antimicrobial Prophylaxis Errors. *Ann Surg*. 2009 Jul;250(1):10-6.
26. Harbarth S, Samore MH, Lichtenberg D, Carmeli Y. Prolonged antibiotic prophylaxis after cardiovascular surgery and its effect on surgical site infections and antimicrobial resistance. *Circulation*. 2000 Jun 27;101(25):2916-21.
27. Chastre J, Wolff M, Fagon JY, Chevret S, Thomas F, Wermert D, et al. Comparison of 8 vs 15 days of antibiotic therapy for ventilator-associated pneumonia in adults: a randomized trial. *Jama*. 2003 Nov 19;290(19):2588-98.
28. Ibrahim EH, Ward S, Sherman G, Schaiff R, Fraser VJ, Kollef MH. Experience with a clinical guideline for the treatment of ventilator-associated pneumonia. *Crit Care Med*. 2001 Jun;29(6):1109-15.
29. Rello J, Gallego M, Mariscal D, Sonora R, Valles J. The value of routine microbial investigation in ventilator-associated pneumonia. *Am J Respir Crit Care Med*. 1997 Jul;156(1):196-200.