

# E' indicato abolire la profilassi antibiotica nella neutropenia post-condizionamento del trapianto autologo ed allogenico?

## Presentazione del quesito

**Corrado Girmenia**

**UOSD Pronto Soccorso e Accettazione Ematologica,  
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CONVEGNO EDUCAZIONALE GITMO

## **HOT QUESTIONS IN TRASPLANTATION AND CELLULAR THERAPIES**

**Udine**

**13-14 novembre 2023**

Aula Polifunzionale - Ospedale di Udine





## Antimicrobial Prophylaxis for Adult Patients With Cancer-Related Immunosuppression: ASCO and IDSA Clinical Practice Guideline Update

Randy A. Taplitz, Erin B. Kennedy, Eric J. Bow, Jennie Crews, Charise Gleason, Douglas K. Hawley, Amelia A. Langston, Loretta J. Nastoupil, Michelle Rajotte, Kenneth V. Rolston, Lynne Strasfeld, and Christopher R. Flowers

### **CLINICAL QUESTION 1**

*Antibacterial Prophylaxis.* Does antibacterial prophylaxis with a fluoroquinolone, compared with placebo, no intervention, or another class of antibiotic, reduce the incidence of and mortality as a result of febrile episodes in patients with cancer?

**Recommendation 1.2.** Antibiotic prophylaxis with a fluoroquinolone is recommended for patients who are at high risk for FN or profound, protracted neutropenia—for example, patients with acute myeloid leukemia/myelodysplastic syndromes (AML/MDS) or HSCT treated with myeloablative conditioning regimens.

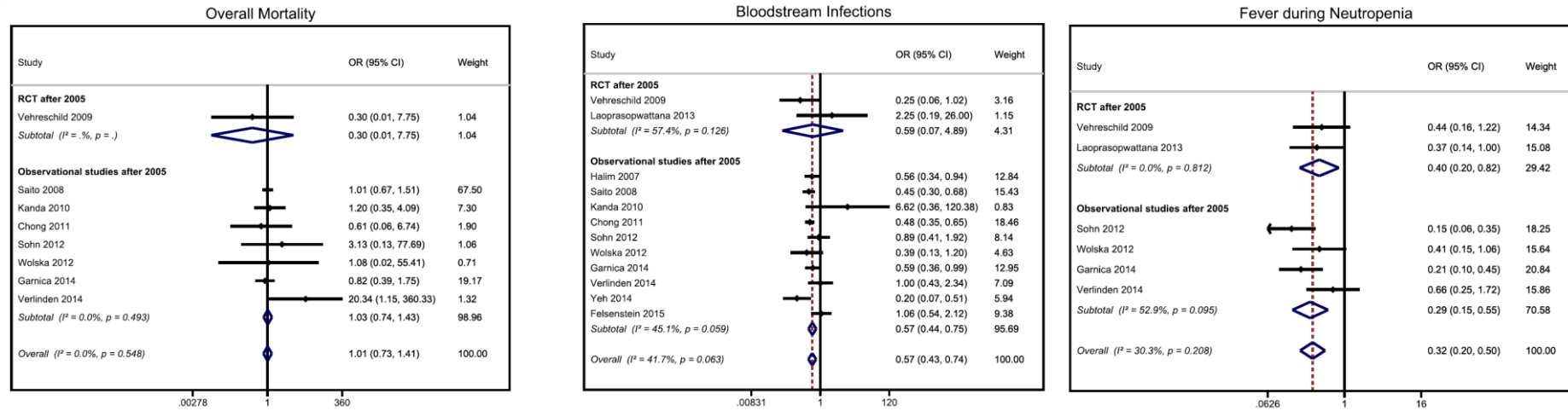
# Fluoroquinolone prophylaxis in haematological cancer patients with neutropenia: ECIL critical appraisal of previous guidelines



Journal of Infection (2018) 76, 20–37

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Fluoroquinolone (FQ) prophylaxis was recommended in 2005 by European Conference on Infections in Leukemia (ECIL) for patients with prolonged neutropenia. In consideration of a worldwide increase in antibiotic resistance, the issue of FQ prophylaxis during neutropenia was re-evaluated.



No effect of the background rate of FQ resistance on the efficacy of FQ prophylaxis was observed. In few studies, FQ prophylaxis resulted in an increased colonisation or infection with FQ- or multi-drug resistant strains.

# Use of antibacterial prophylaxis for patients with neutropenia

M. A. Slavin,<sup>1,2</sup> S. Lingaratnam,<sup>1</sup> L. Mileshkin,<sup>1,3</sup> D. L. Booth,<sup>2</sup> M. J. Cain,<sup>4</sup> D. S. Ritchie,<sup>1,2</sup> A. Wei<sup>5</sup> and K. A. Thursky<sup>1,2,6</sup>

*Internal Medicine Journal* **41** (2011) 102–109

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## Table 1 Key practice points – prophylaxis

- There is currently insufficient evidence to recommend routine use of FQ prophylaxis in patients at low risk of developing neutropenic fever (grade C)
- FQ prophylaxis should also not be routinely used in high-risk haematology patients (grade C)
- FQ prophylaxis could be considered in outpatient SCT and palliative patients with bone marrow failure (grade C)
- Appropriate surveillance (detailed within text) should be undertaken by centres using FQ prophylaxis (grade C)
- When the prevalence of FQ resistance in *E. coli* in internal medicine patients at an institution approaches 20%, FQ prophylaxis is unlikely to be effective (grade C)

SCT, stem cell transplant; FQ, fluoroquinolone.

# 8th European Conference on Infections in Leukaemia: 2020 guidelines for the use of antibiotics in paediatric patients with cancer or post-haematopoietic cell transplantation



Lancet Oncol 2021; 22: e270–80

*Thomas Lehrnbecher, Dina Averbuch, Elio Castagnola, Simone Cesaro, Roland A Ammann, Carolina Garcia-Vidal, Jukka Kanerva, Fanny Lantermier, Alessio Mesini, Malgorzata Mikulska, Dorothea Pana, Nicole Ritz, Monica Slavin, Jan Styczynski, Adilia Warris, Andreas H Groll, on behalf of the 8th European Conference on Infections in Leukaemia*

## Prophylaxis of bacterial infections

the ECIL-8 group **does not recommend routine antibacterial prophylaxis** for paediatric patients with lymphoma, acute leukaemia, relapsed acute leukaemia, or **patients with neutropenia during the pre-engraftment stage of HCT** (grade D recommendation, level of evidence III). This recommendation is based on data from randomised trials and meta-analyses, information from long-term observational studies on resistance, and European Medicines Agency recommendations.

# What are the objectives of an antibacterial prophylaxis strategy in neutropenic patients?

- Effectiveness in reducing febrile episodes
- Effectiveness in reducing infections
- Effectiveness in reducing mortality