



Introduction to ECIL

from ECIL1 to ECIL 4



4th European Conference on Infections in Leukemia

The ECIL is the European Conference on Infections in Leukemia

The ECIL is a common initiative of:

- the Infectious Diseases Working Party of the EBMT
- the Infectious Diseases Group of the EORTC
- the Supportive Care group of the European LeukemiaNet
- the International ImmunoCompromised Host Society

The slide sets are available on the websites of these 4 organizations



ECIL 1: Juan-les-Pins, France, Sept 30-Oct 1st, 2005

59 experts from 24 European countries, one from Australia

ECIL 2: Juan-les-Pins, Sept 28-29th, 2007

53 experts from 24 European countries, one from Australia

ECIL 3: Juan-les-Pins, France, Sept 25-26th, 2009

57 experts from 18 European countries, 2 from Russia

ECIL 4: Sept 9-10th, 2011

53 experts from 18 European countries, one from Russia



Objectives

- **Elaborate European guidelines on prophylaxis, and treatment of infectious complications in leukemic patients**
- **Obtain information about what are current management strategies in Europe**
- **Favor communication between groups**
- **Define new areas of clinical research**



ECIL 1 - 2005: Six topics

- I Fluoroquinolone prophylaxis in neutropenic patients**
- II Aminoglycosides in febrile neutropenia**
- III Glycopeptides and other anti-Gram+ antibiotics in febrile neutropenia**
- IV Empirical antifungal treatment for persistent fever in neutropenic patients**
- V Antifungal prophylaxis**
- VI Antifungal therapy (*Aspergillus* and *Candida*)**



ECIL 2 – september 2007

- **Three topics of ECIL1 were updated:**
 - Empirical antifungal therapy
 - Antifungal prophylaxis
 - Antifungal treatment

- **Two new topics were addressed:**
 - Management of Herpes virus infections:
HSV, VZV, CMV and HHV6 and 7, EBV

 - Management of other viral infections:
Respiratory viruses, Influenza virus
Polyoma, Parainfluenza virus



ECIL 3 – september 2009

UPDATES	<i>Leaders and group members</i>
Empirical Antifungals	<i><u>O Marchetti</u>, C Cordonnier , T Calandra,</i>
Antifungal prophylaxis	<i><u>J Maertens</u>, O Cornely, P Frère, W Heinz, C Lass-Flörl</i>
Antifungal therapy	<i><u>R Herbrecht</u>, B Gachot, U Fluckiger, P Ribaud, A Thiebaut</i>
CMV, HHV6 and EBV	<i><u>P Ljungman</u>, R de la Camara, D Engelhard, H Einsele, P Reusser, J Styczynski, K Ward</i>
New ECIL 3 topics	
Zygomycosis	<i><u>G Pettrikos</u>, A Skiada, F Lanternier, A Groll, Raoul Herbrecht, L Pagano, S Zimmer, O Lortholary</i>
Classical diagnostic procedures of IFI	<i><u>J Bille</u>, M Arendrup, E Dannaoui, C Kibbler, M Ruhnke, C P Heussel</i>
Non-invasive diagnostic procedures for Aspergillus	<i><u>S Bretagne</u>, P Verweij, J Loeffler, J Maertens, P Donnelly, RM Barnes, T Lernbecher, L White, M Cuenca-Estrella</i>
Non-invasive diagnostic procedures for yeasts	<i><u>C Viscoli</u>, M Mikulska, T Calandra, M Sanguinetti, J Ponton, D Poullain</i>
β-D glucane	<i><u>O Marchetti</u>, F Lamoth, M Cruciani, E Castagnola, O Lortholary, M Richardson</i>

ECIL 4 – September 2011

UPDATES	<i>Leaders and group members</i>
Antifungal prophylaxis	<i><u>J Maertens</u>, O Cornely, A Tanase, W Heinz, C Lass-Flörl</i>
Antifungal therapy	<i><u>R Herbrecht</u>, B Gachot, U Fluckiger, P Ribaud, A Thiebaut</i>
CMV, HHV6 and EBV	<i><u>P Ljungman</u>, R de la Camara, D Engelhard, H Einsele, P Reusser, J Styczynski, K Ward</i>
New topics	
Respiratory viruses	<i><u>P Lungman</u>, M Boeckh, H Einsele, D Engelhard, T Feuchtinger, H Hirsch, S Matthes-Martin, R Martino, B Mohty, P Shaw, K Ward</i>
Bacterial resistance in the hematology ward	<i><u>M Akova</u>, D Averbuch, C Cordonnier, I Gyssens, G Klyasova, W Kern, D Livermore, M Mikulska, P Munoz, C Orash, M Tumbarello, C Viscoli</i>
IFI anf antifungal treatment in children	<i><u>A Groll</u>, E Castagnola, S Cesaro, JH Dalle, D Engelhard, W Hope, T Lernbecher, E Roilides, J Styczynski, A Warris</i>



METHODS (I)

1 – Questions proposed by the organization committee and redefined by each group

2 – Population explored: Leukemic, neutropenic (<500/mm³), Auto- and Allo SCT recipients

Key words: leukemia, neutropenia ... MeSH

Sources: Medline, PubMed, Cochrane Library, Abstracts of ASH, ICAAC, ASCO, ECMID, and EBMT (limited to the 4 previous years for abstracts).

3 – Endpoints: overall mortality, infection-related mortality, breakthrough infections, safety, emergence of resistant organisms, costs ± others/group. Eventually redefined according to the topic



METHODS (II)

4 – Literature review:

**Randomized trials, meta-analyses, open studies ,
review articles, treatment guidelines**

5 – Grading the level of evidence and level of recommendation:

CDC grading system

*Please note that the grading system used for the ECIL guidelines has been
changed at ECIL 3 in 2009 (see the next 2 slides)*

6 – Presentation, discussion in plenary session, and revision of the guidelines till consensus



CDC Grading system used for ECIL 1 and ECIL 2, and update of ECIL 3

Quality of evidence	Strength of recommendations
<p>I Evidence from at least one well-executed randomized trial</p> <p>II Evidence from at least one well-designed clinical trial without randomization; cohort or case-controlled analytic studies (preferably from more than one center); multiple time-series studies; or dramatic results from uncontrolled experiments</p> <p>III Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports from</p>	<p>A Strong evidence for efficacy and substantial clinical benefit <i>Strongly recommended</i></p> <p>B Strong or moderate evidence for efficacy, but only limited clinical benefit <i>Generally recommended</i></p> <p>C Insufficient evidence for efficacy; or efficacy does not outweigh possible adverse consequences (e.g., drug toxicity or interactions) or cost of chemoprophylaxis or alternative approaches <i>Optional</i></p> <p>D Moderate evidence against efficacy or for adverse outcome <i>Generally not recommended</i></p> <p>E Strong evidence against efficacy or of adverse outcome <i>Never recommended</i></p>



CDC Grading system used from ECIL3

Quality of evidence	Strength of recommendations
<p>I Evidence from ≥ 1 properly randomized, controlled trial</p> <p>II Evidence from ≥ 1 well-designed clinical trial, without randomization; from cohort or case-controlled analytic studies (preferably from >1 center); from multiple time-series studies; or from dramatic results from uncontrolled experiments</p> <p>III Evidence from opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees</p>	<p>A Good evidence to support a recommendation for or against use</p> <p>B Moderate evidence support a recommendation for or against use</p> <p>C Poor evidence to support a recommendation</p>



Publications subsequent to ECIL meetings ^(1/2)

Following ECIL1

The first European Conference on infections in leukaemia: Why and how? C. Cordonnier, T Calandra. Eur J Cancer 2007; Suppl. 5,.

Quinolone prophylaxis for bacterial infections in afebrile high risk neutropenic patients. G Bucaneve, E Castagnola, C Viscoli, L Leibovici, Francesco Menichetti. Eur J Cancer 2007; Suppl. 5, 5-12.

The need for aminoglycosides in combination with b-lactams for high-risk, febrile neutropaenic patients with leukaemia . L Drgona, M Paul, G Bucaneve, T Calandra, F Menichetti. Eur J Cancer 2007; Suppl. 5. 13-22

Primary antifungal prophylaxis in leukaemia patients..J Maertens, P Frere, C Lass-Flörl, W Heinz, O Cornely. Eur J Cancer 2007; Suppl. 5. 43-48

Empirical use of anti-Gram-positive antibiotics in febrile neutropaenic cancer patients with acute leukaemia. Alain Cometta*, O. Marchetti, T. Calandra. Eur J Cancer 2007; Suppl. 5. 23-31

Empirical antifungal therapy in neutropenic cancer patients with persistent fever. Guidelines of the ECIL1 conference..O Marchetti, C Cordonnier, T Calandra.. Eur J Cancer 2007; Suppl. 5. 32-42.

European guidelines for the treatment of invasive candida and invasive aspergillus infections in adult haematological patients. R Herbrecht, U Fluckiger, B Gachot, P Ribaud, A Thiebaut, C Cordonnier. Eur J Cancer 2007; Suppl. 5., 49-59.

Following ECIL 2

Management of CMV, HHV6, HHV7 and Kaposi-sarcoma herpesvirus infections in patients with hematological malignancies including stem cell transplantation.

P Ljungman, R De La Camara, C Cordonnier, H Einsele, D Engelhard, P Reusser, J Styczynski, K Ward for the ECIL BMT, 2008, Aug;42(4):227-40).

Management of HSV, VZV, and EBV infections in patients with hematological malignancies and after SCT : guidelines from the Second European Conference on Infections in Leukemia.. J Styczynski, P Reusser, H Einsele, R de la Camara, C Cordonnier, KN Ward, P Ljungman, D Engelhard, for the ECIL. BMT 2009; 43:757-770



Publications subsequent to ECIL meetings (2/2)

Following ECIL3

European guidelines for antifungal management in leukemia and hematopoietic stem cell transplant recipients:
Summary of the ECIL3 – 2009 Update

J Maertens, O Marchetti, R Herbrecht, O A. Cornely, U Flückiger, P Frère, B Gachot, W J. Heinz, C Lass-Flörl, P Ribaud, A Thiebaut, C Cordonnier. *BMT*, 2011 May;46(5):709-18.

The use of mannan antigen and anti-mannan antibodies in the diagnosis of invasive candidiasis:
recommendations from the 3rd European Conference on Infections in Leukemia (ECIL-3).

M. Mikulska, T. Calandra, M. Sanguinetti, D. Poulain and C. Viscoli, on behalf of the third ECIL
Critical Care 2010;14(6):R222.

ECIL recommendations for the use of biological markers for the diagnosis of invasive fungal
diseases in leukemic patients and hematopoietic stem cell transplant recipients

O Marchetti, F Lamoth, M Mikulska, C Viscoli, P Verweij, S Bretagne, and the ECIL laboratory working groups.
BMT 2011 Sep 19. doi: 10.1038/bmt.2011.178. [Epub ahead of print]

ECIL 3 Classical diagnostic procedures for the diagnosis of Invasive Fungal Diseases in patients with Leukemia

M Cavling Arendrup, Chris Kibbler, E Dannaoui, M Ruhnke, CP Heussel, J Bille.
BMT 2012 Jan 9. doi: 10.1038/bmt.2011.246. [Epub ahead of print]

Diagnosis and treatment of zygomycosis: Guidelines from the 3rd European Conference on Infections in Leukemia
A Skiada, F Lanternier, A H Groll, L Pagano, S Zimmerli, R Herbrecht, O Lortholary, G Petrikos. *Submitted*

Beta-Glucan antigenemia for the diagnosis of invasive fungal infections in patients with hematological malignancies: A
systematic review and meta-analysis of cohort studies

F Lamoth et al., M Cruciani, C Mengoli, E Castagnola, O Lortholary, M Richardson, O Marchetti.
Clin Infect Dis. 2011 Dec 23. [Epub ahead of print]



On behalf of the Organization Committee of the ECIL 4 meeting

*C Cordonnier, T Calandra, M Akova, S Cesaro, P Donnelly H Einsele,
A Groll, R Herbrecht, P Ljungman, J Maertens, O Marchetti, C Viscoli*

WE SINCERELY THANK ...

The sponsors of ECIL1, 2005: *Astellas Pharma, BMS, Gilead Sciences, Glaxo Smith Kline, Merck Sharp&Dohme, Pfizer, Schering Plough, Wyeth and Zeneus Pharma*

The sponsors of ECIL 2, 2007: *Astellas Pharma, Cephalon, Gilead Sciences, Glaxo Smith Kline, Merck Sharp&Dohme, Novartis, Pfizer, and Schering Plough*

The sponsors of ECIL 3, 2009: *Astellas Pharma, Gilead Sciences, Merck Sharp&Dohme, Pfizer, and Schering Plough*

And the sponsors of ECIL4, 2011: *Astellas Pharma, Gilead Sciences, Merck Sharp&Dohme, Novartis, and Pfizer*

And KOBE, Groupe GL Events, Lyon, for organizing the conferences



4th European Conference on Infections in Leukemia