Introduction to ECIL
from ECIL1 to ECIL 4
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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Leaders and group members</th>
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<tbody>
<tr>
<td>Empirical Antifungals</td>
<td>O Marchetti, C Cordonnier, T Calandra,</td>
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<tr>
<td>Antifungal prophylaxis</td>
<td>J Maertens, O Cornely, P Frère, W Heinz, C Lass-Flörl</td>
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<tr>
<td>Antifungal therapy</td>
<td>R Herbrecht, B Gachot, U Fluckiger, P Ribaud, A Thiebaut</td>
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<tr>
<td>CMV, HHV6 and EBV</td>
<td>P Ljungman, R de la Camara, D Engelhard, H Einsele, P Reusser, J Styczynski, K Ward</td>
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## New ECIL 3 topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Leaders and group members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classical diagnostic procedures of IFI</td>
<td>J Bille, M Arendrup, E Dannaoui, C Kibbler, M Ruhnke, C P Heussel</td>
</tr>
<tr>
<td>Non-invasive diagnostic procedures for Aspergillus</td>
<td>S Bretagne, P Verweij, J Loeffler, J Maertens, P Donnelly, RM Barnes, T Lernbecher, L White, M Cuenca-Estrella</td>
</tr>
<tr>
<td>Non-invasive diagnostic procedures for yeasts</td>
<td>C Viscoli, M Mikulska, T Calandra, M Sanguinetti, J Ponton, D Poullain</td>
</tr>
<tr>
<td>beta-D glucane</td>
<td>O Marchetti, F Lamoth, M Cruciani, E Castagnola, O Lortholary, M Richardson</td>
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## New topics

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Respiratory viruses</td>
<td>P Ljungman, M Boeckh, H Einsele, D Engelhard, T Feuchtinger, H Hirsch, S Matthes-Martin, R Martino, B Mohty, P Shaw, K Ward</td>
</tr>
<tr>
<td>Bacterial resistance in the hematology ward</td>
<td>M Akova, D Averbuch, C Cordonnier, I Gyssens, G Klyasova, W Kern, D Livermore, M Mikulska, P Munoz, C Orash, M Tumbarello, C Viscoli</td>
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</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Quality of evidence</th>
<th>Strength of recommendations</th>
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<tbody>
<tr>
<td>I Evidence from at least one well-executed randomized trial</td>
<td>A Strong evidence for efficacy and substantial clinical benefit</td>
</tr>
<tr>
<td>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</td>
<td><strong>Strongly recommended</strong></td>
</tr>
<tr>
<td>III Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports from</td>
<td>B Strong or moderate evidence for efficacy, but only limited clinical benefit <strong>Generally recommended</strong></td>
</tr>
<tr>
<td></td>
<td>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 <strong>Optional</strong></td>
</tr>
<tr>
<td></td>
<td>D Moderate evidence against efficacy or for adverse outcome <strong>Generally not recommended</strong></td>
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<tr>
<td></td>
<td>E Strong evidence against efficacy or of adverse outcome <strong>Never recommended</strong></td>
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## CDC Grading system used from ECIL3

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<th>Strength of recommendations</th>
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<tr>
<td>I  Evidence from $\geq 1$ properly randomized, controlled trial</td>
<td>A <strong>Good evidence</strong> to support a recommendation for or against use</td>
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<tr>
<td>II Evidence from $\geq 1$ well-designed clinical trial, without randomization; from cohort or case-controlled analytic studies (preferably from $\geq 1$ center); from multiple time-series studies; or from dramatic results from uncontrolled experiments</td>
<td>B <strong>Moderate evidence</strong> support a recommendation for or against use</td>
</tr>
<tr>
<td>III Evidence from opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees</td>
<td>C <strong>Poor evidence</strong> to support a recommendation</td>
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Adapted from Canadian Task Force on the Periodic Health Examination
Walsh et al. CID 2008; Pappas et al. CID 2009
Publications subsequent to ECIL meetings (1/2)

Following ECIL 1


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


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


Following ECIL 2


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

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).

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

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

Diagnosis and treatment of zygomycosis: Guidelines from the 3rd European Conference on Infections in Leukemia

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