1997;89:2079-88.

Prognostic factors and life expectancy in myelodysplastic syndromes classified
according to WHO criteria: a basis for clinical decision making. J Clin Oncol.
2000;23:2594-603.

Time-dependent prognostic scoring system for predicting survival and leukemic

4 - Sanz G, Nanneledo B, Such E, Bernal T, Belkaid M, Ardanaz MT, et al. Indepen-
dent impact of iron overload and transfusion dependency on survival and leukemic
evolution in patients with myelodysplastic syndromes. Blood (ASH Annual Meeting
Abstracts). 2008;112:[abstract 640].

Matched analysis of 186 MDS patients receiving iron chelation therapy or transfusion therapy only. Blood (ASH Annual Meeting Abstracts). 2009;114:[abstract 1742].


7 - Rose C, Brenchine P, Sassielle D, Pascal L, Stamatoulas A, Guea E, et al. Does iron chelation therapy improve survival in regularly transfused lower risk MDS pa-
tients? A multicenter study by the GFM. Leuk. Res. [Epub ahead of print 2010 Feb 1].

prognostic score for patients with lower risk myelodysplastic syndrome. Leukemia.
2009;23:1747.

overload is a major risk factor for severe infection after autologous stem cell trans-
plantation: a study of 367 myeloma patients. Bone Marrow Transplant. 2006;37:857-
64.


13 - Caparros I, Garcia-Delgado R, Campos A, Rosell A, Queipo de Llano MP, de

overload is a major risk factor for severe infection after autologous stem cell trans-
plantation: a study of 367 myeloma patients. Bone Marrow Transplant. 2006;37:857-
64.

ing Abstracts). 2009;114:[abstract 640].


ing Abstracts). 2009;114:[abstract 640].

18 - Caparros I, Garcia-Delgado R, Campos A, Rosell A, Queipo de Llano MP, de

19 - Caparros I, Garcia-Delgado R, Campos A, Rosell A, Queipo de Llano MP, de


22 - Caparros I, Garcia-Delgado R, Campos A, Rosell A, Queipo de Llano MP, de

23 - Caparros I, Garcia-Delgado R, Campos A, Rosell A, Queipo de Llano MP, de

24 - Caparros I, Garcia-Delgado R, Campos A, Rosell A, Queipo de Llano MP, de
I am very happy and honoured to be part of the new ESH Executive Committee. As a lecturer and a clinician in Haematology, I have always counted on ESH training courses, at first for myself and now for my students and assistants. ESH is able to constantly adapt to the overwhelming increase in knowledge arising in our rapidly evolving scientific field and to translate it into valuable educational opportunities. The School’s new organizational structure set up this year, is yet another example of this. The new extensive Scientific Board includes members from a variety of disciplines, European countries and European haematology organizations and societies. It provides the structure required to pursue the School’s mission and to coordinate future training activities throughout Europe. It will be my pleasure to contribute to this new setting, with Eliane Gluckman and Bob Löwenberg.

Christine Chomienne
ESH, Secretary, Executive Committee

OPEN CALL FOR APPLICATIONS 2011-2012
to CHAIR / ORGANIZE
an ESH INTERNATIONAL CONFERENCE
or an ESH INTERNATIONAL TRAINING COURSE

Interested clinicians and scientists are welcome to apply to chair and develop the scientific programme of an ESH International Conference or an ESH Training Course in 2011 or 2012. ESH International Conferences are high-level scientific meetings including topics in either or both clinical or basic science whereas ESH International Training Courses have a more educational focus. ESH International Conferences are to 2.5 day meetings starting on a Friday afternoon and ending on Sunday before lunch. ESH International Training Courses are full immersion 3-day meetings.

To apply, please follow the two-step procedure involving a Pre-Call and a Call for applications available on the ESH website www.esh.org

FIRST INTERNATIONAL CONFERENCE ON HEMATOLOGICAL MALIGNANCIES IN THE ELDERLY

Chairs: L. Baldacci, P. Fenaux, J.L. Harousseau
2-4 July 2010 - Lisbon, Portugal

This ESH conference on haematological malignancies in the elderly will be organized in association with the International Society of Geriatric Oncology (SIOG). It is open to physicians and nurses working in the field of haematology, oncology, gerontology and geriatrics. It will be an opportunity for interdisciplinary cross-fertilization. Due to increased longevity, haematological malignancies are seen with increasing frequency in elderly patients. While the prognosis of most haematological malignancies has improved over the last 2 decades with better treatments and better supportive care, in many cases it remains to be seen how these clinical breakthroughs can be applied to the elderly patient population.

Physiological age does not always reflect chronological age. The physiological age of elderly patients, as a group, has improved over time and it may now be possible to deliver somewhat more aggressive treatments to these patients than before. All the same, equally effective but less myelosuppressive new treatments are generally preferred in this age range.

The scientific programme will address the physiology and pathophysiology of ageing and the consequences of cytopenias. It will also discuss how functional capacities, co-morbidities and quality of life should be analyzed.

Due to increased longevity, haematological malignancies are seen with increasing frequency in elderly patients. While the prognosis of most haematological malignancies has improved over the last 2 decades with better treatments and better supportive care, in many cases it remains to be seen how these clinical breakthroughs can be applied to the elderly patient population.

Physiological age does not always reflect chronological age. The physiological age of elderly patients, as a group, has improved over time and it may now be possible to deliver somewhat more aggressive treatments to these patients than before. All the same, equally effective but less myelosuppressive new treatments are generally preferred in this age range.

The scientific programme will address the physiology and pathophysiology of ageing and the consequences of cytopenias. It will also discuss how functional capacities, co-morbidities and quality of life should be analyzed in elderly patients. The management of the main types of haematological malignancies in the older individual will be addressed in detail.

The webcasted conference will subsequently be available on the ESH website.

For further information and to register: www.esh.org
A chain of solidarity linking the vocational actors, the general public, and EU policy makers to improve patient outcomes

The European School of Haematology is very pleased to be one of the fifteen international partner organizations in the European Commission funded Eurocord-Ed project. The three-year project is now in its second successful year and the forty members of the consortium submitted the project’s mid-term report to the European Commission at the end of April 2010. The midterm report provided the opportunity to explain the importance of cord blood technology and clinical applications. It aims to be an easily accessible lifelong training tool for many vocational sectors involved in cord blood technology and clinical applications, and to foster communication and exchange between vocational actors and vocational sectors who are separated by constraints notably linked to geographical setting and language. It is also designed to be a resource for healthcare policy makers.

As a resource for lifelong learning, Eurocord-Ed offers new, easily accessible opportunities to improve knowledge and skills. Webcasted scientific, technical and clinical conferences, Standard Operating Procedures articles, links to publications, information on upcoming conferences and seminars, information on regulatory and ethical issues can all be found on Eurocord-Ed. Video demonstrations of technical procedures, interactive case study sessions and Meet the Expert Forums are in preparation and will be available soon. By the end of the project, Eurocord-Ed should be a very diverse, lifelong training tool for the many vocational sectors involved in cord blood technology and clinical applications. It aims to be an easily accessible, rapidly evolving, comprehensive lifelong learning tool.

In 1988, the parents of a very sick American child accepted that their little boy should travel to Paris to become the first recipient of a cord blood stem cell transplantation. In doing so, they saved his life and allowed him to become the fully recovered adult, husband and father he is today. Twenty-two years later, cord blood transplantation is used to treat a broad range of clinical, life-threatening disorders.

The procedure to harvest stem cells from the umbilical cord after birth is totally safe and painless for both the mother and the child. And yet, families are not well informed that the donation of an umbilical cord can save lives. The umbilical cord and the precious stem cells it harbours are generally simply discarded.

To improve this situation, it is necessary to raise awareness through a chain of solidarity linking the general public to the vocational actors involved in the field and to healthcare decision makers. It is also essential to promote communication between the vocational sectors active in cord blood technology and clinical applications and to provide lifelong learning tools to improve and harmonize professional knowledge and skills.

Eurocord-Ed is an on-line project for vocational learning in the fields related to cord blood technology and clinical applications. It aims to be an easily accessible lifelong training tool for the many vocational sectors involved in cord blood technology and clinical applications, and to foster communication and exchange between vocational actors and vocational sectors who are separated by constraints notably linked to geographical setting and language. It is also designed to be a resource for healthcare policy makers.

As a resource for lifelong learning, Eurocord-Ed offers new, easily accessible opportunities to improve knowledge and skills. Webcasted scientific, technical and clinical conferences, Standard Operating Procedures articles, links to publications, information on upcoming conferences and seminars, information on regulatory and ethical issues can all be found on Eurocord-Ed. Video demonstrations of technical procedures, interactive case study sessions and Meet the Expert Forums are in preparation and will be available soon. By the end of the project, Eurocord-Ed should be a very diverse, lifelong training tool for the many vocational sectors involved in cord blood technology and clinical applications.
Myelodysplastic syndromes (MDS) are characterized by ineffective erythropoiesis, peripheral-blood cytopenias, and, Depending on a number of risk factors: the median survival ranges from less than 6 months for patients with high-risk MDS to over 5 years for those with low-risk disease. Most patients receive regular transfusions of red blood cells to counteract the effects of anaemia, and therefore patients with a high transfusion burden are at risk of developing iron overload. Transfusion dependence and increased serum ferritin levels (>1,000 ng/mL) are associated with poor survival outcomes in patients with MDS and iron overload. Transfusion dependence was associated with poor outcomes in MDS patients (2,3,8). While many of these studies were relatively small, our study revealed that most patients (84%) died due to disease-related problems, such as infection, including infections. Other studies have confirmed that increased serum ferritin levels prior to transplantation are associated with an increased risk of infections – including bacterial and fungal infections – in patients with higher-risk MDS or AML (4–6). Other studies have confirmed that increased iron load prior to transplantation negatively affects outcomes (7–11). Given these findings, the next step is to determine the best way to reduce the risk of infections in patients receiving transplants. While ICT is typically considered after transplantation, it may be beneficial to lower iron levels prior to transplantation. The more proactive use of ICT in this setting may avoid the toxic effects of excess iron, including infections.

### Conclusion:

These data provide further evidence that ICT improves overall survival in MDS patients.

### Table 1: Effect of transfusion dependence and iron overload on the risk of death or AML transformation in 902 patients with MDS.

(Data from Sanz G, et al. (9)).

<table>
<thead>
<tr>
<th>Overall Survival</th>
<th>AML-Free Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard ratio (p value)</td>
<td>Hazard ratio (p value)</td>
</tr>
<tr>
<td>1.21 (0.057)</td>
<td>0.90 (0.029)</td>
</tr>
</tbody>
</table>

*Defined by the WPSS criteria as: at least 1 red blood cell transfusion every 8 weeks over a period of 4 months (8).
†Defined as serum ferritin > 1,000 ng/mL.
AML = acute myeloid leukaemia; MDS = myelodysplastic syndromes; WPSS = WHO classification-based Prognostic Scoring System.

---

### Commentary:

**What prompted this study?**

**Dr Fox:** A link between transfusion dependence and shorter survival times has been clearly established in patients with MDS (4–6), but it is less clear whether the poorer outcomes were due to the more aggressive underlying disease that required transfusion, or the increased risks associated with transfusion therapy itself, including iron overload. A study reported by Leitch et al. provided the first hint that reducing iron levels with ICT may improve survival in patients with lower-risk MDS (6) and a subsequent study by the Groupe Francophone des Myélodyssplasies (GFM) also found a strong correlation between ICT and survival (7). We conducted a matched-pair analysis using our MDS patient registry in Düsseldorf to determine the effects of long-term ICT on survival.

**What were the main findings from this study?**

**Dr Fox:** This was the first matched-pair analysis to assess the impact of ICT on survival in patients with MDS. The main finding was that median survival was significantly longer in patients who received ICT than in those who did not (74 months vs 49 months; p < 0.002).

**Dr Duarte:** The study presented by Dr Fox builds upon the findings from previous studies (including a study by the Spanish Registry of MDS presented by Dr Sanz at ASH 2008) (4), which indicated that transfusion dependence and iron overload are associated with poor outcomes in MDS patients (5,6). While many of these studies were relatively small, our study was a large, retrospective analysis involving over 2,000 patients with MDS (4). The results confirmed that transfusion dependence was associated with poor outcomes and showed that iron overload was an independent prognostic factor for not only survival, but also AML transformation (Table 1). The study by Dr Fox and colleagues represents an important step forward in our understanding of the effects of ICT in MDS, and brings us closer to defining ways in which we can improve daily practice in a manner that could have a meaningful impact on patient outcomes (10).

**How does ICT lead to improved survival?**

**Dr Fox:** The beneficial effects of ICT are attributed primarily to its ability to remove iron from tissue, thereby reducing organ damage and dysfunction that could lead to clinical complications, such as cardiac death. One of the major limitations of our study was the lack of data on the cause of death. Differences in the cause of death between patients who received ICT and their matched controls may have provided an indication of exactly how ICT influenced survival. A significant decrease in cardiac death, for example, would have supported the hypothesis that cardiac iron overload is a significant cause of death in MDS that can be reversed by ICT. A recent analysis of causes of death in patients with lower-risk MDS revealed that most patients (84%) died due to disease-related problems, such as infection (38%), AML transformation (15%), or haemorrhage (13%) (10). Of the 43 patients who died of causes not directly related to MDS, the most common cause was cardiovascular events (44%).

**Dr Duarte:** In addition to the data presented by Dr Fox, several other noteworthy presentations related to iron overload in MDS were given at ASH 2009. For example, Mattiuzzi and colleagues reported that increased serum ferritin levels prior to transplantation are associated with an increased risk of infections – including bacterial and fungal infections – in patients with higher-risk MDS or AML (7–9). Other studies have confirmed that increased iron load prior to transplantation negatively affects outcomes (10–11). Given these findings, the next step is to determine the best way to reduce the risk of infections in patients receiving transplants. While ICT is typically considered after transplantation, it may be beneficial to lower iron levels prior to transplantation. The more proactive use of ICT in this setting may avoid the toxic effects of excess iron, including infections.