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HAEMATOLOGY SOCIETY OF AUSTRALIA AND NEW ZEALAND NURSES' GROUP

HSANZ Nurses' Group News

A Message from the President

You have most likely heard by now the great news. Negotiations with the HSANZ are ongoing but, in principle, our proposal has been accepted and we are becoming the HSANZ Nurses Group.

The details are being finalised but the most likely scenario for membership is that nurse members will be HSANZ-NG members giving access to educational meetings, reduced registration to the annual meeting, a newsletter 4 times a year and access to password protected areas of the HSANZ website with much educational material.

Nurses will probably be able to apply through the nurse's steering committee for membership which may expedite the process and we are developing the national aspect of the group. We have called for a representative from each State, Territory and New Zealand to join the national steering committee which will meet by teleconference three times a year. Our first national tele-meeting is planned for June 26th.

The expectation is then that the 'local' representative will form a local steering group to organise educational activities at a local level and guidelines are being drawn up as to how to do this easily and effectively.

Our inaugural annual general meeting will be held at the annual HSANZ meeting on the Gold Coast in October and an agenda will be circulated in September with a call for points of discussion and any comments you may have on presented agenda items if you are unable to be present in person.

Conference sponsorship – The HSANZ council have generously agreed to support three nurses in attending the annual conference – so, get writing those abstracts. The travel awards will be for best abstracts.

As our own kitty grows and we will be able to sponsor junior nurses attending their first conference with out an abstract.

This is a very exciting time in the history of haematology specialist nursing in Australia and I congratulate you all for being a part of this and having the energy and drive to join in this movement.

Annual Scientific Meeting

A reminder that this year's conference is being held on the Gold Coast from October 14 –17, with the nurses' program scheduled for the first two days.

An interesting nurses program has been organized by the hard working committee co-chaired by Katrina Williams from the Mater and Rosita van Kuilenburg from Princess Alexandra, both in Brisbane. The rest of the committee comprises other local representatives and volunteers from all Australian states and New Zealand.

Although there is a 2-day program specifically for nurses, we would encourage you to attend all 4 days , as the conference is a great place to learn and , as an added bonus, is very social.

The final date in July for closing of abstracts is still not available. In the meantime, see http://www.fcconventions.com.au/HAA2007/ for more information.

Inside this issue:

Special points of interest:

- *Practice Corner—What are you doing in your Unit?*
- *Ask the Expert—email in with your questions and your answer will appear in the next issue.*
- *How Do I—Read a Research Article— Find it out here.*
- *Tearoom Guru—do you have a gripe*

How Do I .....Read a Research Article ?

A research article will always contain the following sections: ***Abstract, Introduction, Methods, Results, Discussion,*** *and* ***References*** or similar headings.

The ***abstract*** contains a summary of the key points of the article, including purpose, study question or hypothesis, study population and findings and can usually give a quick insight into whether it will be of use to you.

The ***introduction*** gives the background to and places the study into context and also gives the hypothesis. It will also usually contain a review of prior studies related to this study.

The ***methods*** section describes the approach taken in the study eg randomized, quantitative, qualitative etc. This section provides detailed information about the research instrument used, (e.g. questionnaire), study population , procedures, and the approach to data analysis.

Data is summarized in the ***results*** section. The relationships among variables and/or differences among groups are reported. These analyses should directly reflect the predictions originally described in the Introduction.

In the ***discussion***, findings are summarized in narrative form, as opposed to statistics or numbers. The ways in which the study's results confirm or refute the hypothesis and how they compare to previous studies will also be discussed. as well as suggestions for the need for further studies on the topic.

The ***references*** contain a list of the sources cited in the article such as books and articles, as well as sources not directly used but are relevant to the topic. HINT: Use the Reference list to find still other sources on your topic.

When reading the article, don't necessarily start by reading from the start to finish.

Below are some tips on how to read effectively:

- Start with the ***abstract*** for an overview.
- Read the first paragraph or so of the ***introduction*** to get a feel for the issue. Find and read the hypothesis.
- Skim the ***discussion*** to see how the study turned out.
- Now, read the ***methods*** and plan to reread it, even a couple of times to digest it all.
- Then, read the ***results*** section. You may need to skim the discussion for clarification of what the reported statistics demonstrate.

HINT: Try not to get bogged down in the details of either the methods or the results section—just try to understand how the hypothesis was tested.

- Read the ***discussion*** more closely.
- Finally, read the whole article, from first to last page.

Practice Corner

The Cancer Institute NSW CI-SCaT (Standard Cancer Treatments) program recently held a 2-day workshop for oncology/haematology nurses from around Australia. Every state and territory was represented with 64 nurses attending. This was equivalent to a staggering >1200 years cumulative nursing experience.

For those of you not familiar with CI-SCaT, it is now a Cancer Institute NSW initiative aimed at trying to ensure that patients being treated anywhere have access to the same treatment opportunities. It also aims to provide staff, where ever they are based, with access to the latest evidence-based cancer treatments.

The aims of the workshop were to try to standard and increase the nursing information available on CI-SCaT.

Information was developed in 19 content areas and discussed by email in the lead up to the workshop.

At the meeting itself, content was discussed and mostly approved for upload to the site once the comments/ suggestions have been incorporated.

It was hard work for the full two days, but it did provide ample opportunities for networking and discovering like-minded people in other units. This will be an annual event, usually in May. If you are interested in attending, keep your eyes on the website: https://www.treatment.cancerinstitute.org.au

In the next and subsequent issues

Practice Corner — are you or someone in your unit trying to effect practice change? If so we would love to hear from you about what you are doing — email the Editor.

Ask the expert — send your questions about anything to do with your clinical practice area to us (email the Editor) and we will find the most appropriate person to answer your question.

Research snippets — we will endeavour to keep you up to date with the latest research publications, drug information and anything else we think may be of interest to you. Alternatively, if you are, or your unit is conducting research that you would like to share or for which you would like to obtain input from others, again email the Editor.

Does anyone have a catchy name for this newsletter? Please let us know……

THE MYELODYSPLASTIC SYNDROMES
("When the cells are not at home")

Professor John Gibson

(summary of talk given at the Educational Evening , The Wharf Restaurant, Sydney, April 2007)

The myelodysplastic syndromes (MDS) are a group of closely related clonal disorders of the haemopoietic stem cell which have in common a variety of clinical and laboratory features. Firstly, they are characterised by an overwhelmingly heterogeneous natural history. Secondly, the disorders are primary and intrinsic to the marrow and, being clonal, have the characteristics of a malignancy (of the haemopoietic stem cell). MDS can affect one or more haemopoietic lineages and leads to dysplastic and ineffective maturation. Finally, patients may present early in the course of the disease with progression characterised by the "worsening" of the type of MDS, progressive cytopenias and a transformation to acute leukaemia.

Whilst recognised in the young, MDS are most frequently disorders of later life with an incidence of approximately six times that of AML (approximately 0.75/1000/yr). We recognise primary MDS in which there is no evidence of a preceding haematological disorder, chemotherapy or radiotherapy. Alternatively, 20% of patients will present with a secondary MDS, having a history of preceding chemotherapy or bone marrow damage. Alkylating agents and Etoposide are well-recognised to be associated with secondary MDS.

The modern understanding of MDS stems from the formulation of the French, American and British (FAB) classification system which brought together a number of previously described syndromes, such as oligoblastic leukaemia or pre-leukaemia. The FAB system was refined by the World Health Organisation (WHO) classification system at the beginning of this decade [1,2]. A significant feature of the WHO system is that it recognises the distinction between those MDS's which are primarily erythroid-based, such as refractory anaemia or refractory anaemia with ringed sideroblasts, which have a "relatively good" prognosis, from those in which haemopoietic involvement is multi-lineage and associated with severe cytopenias and the progression to acute leukaemia.

Thus we now recognise refractory cytopenia with multi-lineaged dysplasia (RCMD) and refractory anaemia with excess blasts (RAEB). In the latter categories, the percentage of marrow blasts is highly significant prognostic factor. When the WHO system was being developed, it was hoped that cytogenetics would play an important role in the classification system. However, only one specific cytogenetic abnormality (5q-) has been associated with a recognisable syndrome. The so-called 5q- syndrome which tends to be a mild disease characterised by anaemia and thrombocytosis.

Another key to our better understanding of patients with MDS has been the development of prognostic scoring systems. Used in conjunction with the WHO classification, such systems add further clinical definition to individual patients. Probably the best recognised scoring system is the International Prognostic System (IPSS), first published in the late 1990's [3]. The 3 key features of the IPSS system the percentage of blasts in the bone marrow, the karyotype and the presence of more than one cytopenia. Patients are graded into low, intermediate-1, intermediate-2, or high risk categories. The higher the category, the more likely the transformation to acute myeloid leukaemia and the lower median survival. For instance, patients in the high risk category have a median survival of <1 year, whereas those in the low risk category will have a median survival of >6 years. Similarly, progression to AML occurs in 50% of the high risk patients but only 20% of the low risk patients.

Cytogenetics is also a key prognostic factor in MDS. Whilst the 5q- is the only reproducibly recognised syndrome, it is well recognised that patients with complex (>3 abnormalities per karyotype) or chromosome 7 abnormalities are a particularly high risk, while those with normal cytogenetics, the 5q-, 20q- and -y, tend to be in the "better risk group". All others fall into an intermediate risk category.

The marked heterogeneity of the clinical behaviour of the MDS imposes particular therapeutic challenges for management [4]. Added complexities include the age of patient and the, historically, poor response to conventional chemotherapy. Many patients with MDS may in fact not need specific therapy for many years, just regular observation to monitor for change. Blood transfusion is the most commonly employed treatment. A significant proportion of patients may require only regular transfusions to maintain quality of life. Iron overload, infections and bleeding then however become the major causes of increased morbidity.

Patients with high transfusion requirement are well-recognised to develop the consequences of chronic iron overload. Patients with iron overload have a reduced survival compared to those with otherwise similar forms of MDS, but without high transfusion requirements. The ability of effective, orally active iron chelating agents has been a significant advance in the management of these patients. A recent study has demonstrated that oral iron chelators (such as Deferasirox) can lead to a significant reduction in the total iron burden in patients with MDS.

Haemopoietic growth factors, such as Erythropoietin (EPO) and the G-CSF's, are also useful in small numbers of patients. EPO may increase the haemoglobin in about 20% of patients with low risk MDS. G-CSF has been reported to act synergistically with EPO. Immunosuppression with agents such as anti-thymocyte globulin and Cyclosporin A have also been reported to lead to modest responses in a quarter to one-third of patients with low risk MDS. The anti-angiogenic and immunomodulatory agent, Thalidomide, has also been used and produces similar responses.

Some exciting new agents include Lenalidomide and the demethylating agents (Azacytidine and Deoxyazacytidine). Lenalidomide (which is an analogue of Thalidomide but with less neurotoxicity) has been reported to be active in patients with the less severe forms of MDS, in particular those with the 5q- syndrome [5]. Over two-thirds of patients have been reported to have "significant erythroid responses" and 5 - 7% have been reported to undergo complete cytogenetic responses. Grade 3 and 4 neutropenia and thrombocytopenia were however dose-limiting. Lenalidomide is also active in the other less severe forms of MDS. Long term results are awaited, in particular the effect of Lenalidomide on AML evolution and survival.

Chromatin remodelling and epigenetic therapies with drugs that affect DNA methylation have been of increasing interest in MDS. These drugs are thought to act by inducing re-expression of critically important suppressor genes that had been silenced in the process of oncogenesis. In a randomised study, compared to supportive therapy, Azacytidine has been reported to lead to an improvement in haemopoietic parameters in one third of patients, compared to 5% of the controls [6]. In the same study, the time of the leukaemic progression was almost doubled from 13 to 27 months. Again however, the best responses were seen in patients with low risk disease, although a small proportion of patients with higher risk MDS (intermediate-2 and high) did fare better than those treated with best available supportive care.

For those patients with more advanced forms of MDS, including those who are progressing to acute leukaemia, standard anti-leukaemic chemotherapy has been the only option for many years. The results are in general disappointing. Hence an interest in transplantation options for suitable patients. The median age of MDS patients is a significant restriction on transplant availability but, with the advent of reduced intensive conditioning, it is likely that more patients will be offered transplant options in the near future. An analysis from the Centre for International Blood & Marrow Transplant Research has reviewed over 400 patients with MDS transplanted from HLA identical siblings. For those aged >18 yrs, the 3 year survival was 45% but with a transplant-related mortality of 37%. Patients transplanted earlier in the course of their disease fared better than patients transplanted in the later stages. Thus for patients with advanced MDS, allogeneic stem cell transplantation may be an option, although wide application is clearly limited by donor availability and the age (and co-morbidities) of the patient.

References

1. WHO classification of tumours. Pathology and genetics of tumours of the haemopoietic and lymphoid tissues. Ed: Jaffe ES, Harris NL, Stein H, Vardiman JL. IARC press 2001.
2. Germing U, Strupp C, Kuendgen A et al. Prospective validation of the WHO proposals for the classification of myelodysplastic syndromes. Haematologica 2006; 91:1596-1604.
3. Greenberg P, Cox C, Le Beau MM et al. International Scoring System for evaluating prognosis in myelodysplastic syndrome. Blood 1997; 89:2079-88.
4. Bowen D, Culligan D, Jowitt S et al. Guidelines for the diagnosis and therapy of adult myelodysplastic syndromes. British Journal of Haematology 2002.
5. Silberman LR, Mckenzie DR, Peterson BL et al. Further analysis of trials with Azacytidine in patients with myelodysplastic syndrome. Journal of clinical oncology 2006; 24: 3895-3903.
6. List A, Curtin S, Roe DJ et al. Efficacy of Lenalidomide in myelodysplastic syndromes. New England Journal of Medicine 2005; 352: 549-57.

Ref:MDSsyndromes07jg

Recent Activities

The activities within NSW have continued to gather momentum. In late June, Dr Nicky Gilroy will present "When Fungus the Bogeyman meets a haematology patient" with 85 booked to attend the evening

96 Nurses attended the MDS educational session at the fabulous Wharf Restaurant.

Educational topics planned for 2008 include; Myeloma—new paradigms of treatment and a patient's perspective; Stem cell sources –an update; Haemaphilia for children and adults; Palliative Care in haematology –where are we? And; What's happening now in CML as the Glivec era continues to revolutionizes .

The first All Antipodean telephone conference meeting has been organized for June 26th and representatives have been invited from Queensland, NT, Victoria, South Australia, Western Australia and New Zealand to meet by telephone with the steering group to take the Society forward.

We now have over 180 nurses registered on our database, 40 of whom are from outside of NSW.

Useful Web Links

- American Society of Hematology www.hematology.org
- American Society of Hematology, Annual Education Books www.asheducationbook.org
- Amyloidosis Australia www.amyloidosisaustralia.org
- Australasian Leukaemia and Lymphoma Group www.petermac.org/allg
- Australian & New Zealand Society of Blood Transfusion (ANZSBT) www.anzsbt.org.au
- Australasian Society of Haemostasis and Thrombosis (ASTH) www.asth.org.au
- ASTH Discussion Group www.asth.org.nz
- Federal Drug Administration www.fda.gov
- International Society of Haematology, Asian-Pacific Division (ISHAPD) www.ishapd.org
- International Society of Laboratory Hematology (ISLH) www.islh.org
- Leukemia and Lymphoma Journal www.tandf.co.uk/journals/titles/10428194.asp

New Resources for Nurses

Bone Health Educational Resource
A new Australian educational resource has been developed to assist nurses in their understanding of the assessment and management of bone disease of malignancy .The program includes the following:

- Nurse's guide to the assessment and management of bone disease
- A flip chart to aid education of peers and patients
- Patient information booklets for Multiple Myeloma, Prostate and Breast Cancer.

Contact your local Novartis Zometa representative for more information.

Myeloma Nurses Learning Program

This novel myeloma education resource is available to all wards and units caring for those affected by myeloma. The pack is designed as a self-learning manual divided into 18 stand-alone modules, including a CD-ROM with an animated tutorial to accompany each module. The educational resource aims to provide you with evidence based, up to date information on all aspects of myeloma.

The program will be updated with the results of new research with new units due out soon.

The program was developed by the European Blood and Marrow Transplant Nurses Group (EBMT-NG) and the International Myeloma Foundation (UK), (now known as Myeloma UK) has been made available to nurses in Australia via the Myeloma Foundation of Australia and an educational grant from Pharmion.

If you are involved in the education of nurses in your area and would like to obtain a copy of the myeloma learning program, please contact the Myeloma Foundation of Australia or your local Pharmion representative. Tracy King – Myeloma Foundation of Australia tracy.king@email.cs.nsw.gov.au Tel: 02 9515 7310

From the Treasurer

I can happily report that we are a solvent society! Thank you to those that brought raffle tickets at the last education session we raised $278 to add to the $208 we already have in the kitty. A big thank you to Pharmion for funding our last education session at the wharf.

Our next education session on the and is being funded by Gilead. Once again we will hold a raffle, I will be asking The Stamford to donate dinner for two in there dining room as first prize and Amgen have kindly donated 5 text books to use as prizes in our raffles.

Other fundraising events envisaged, (sponsored City to Surf in Sydney and Sausage sizzles hosted by Bunnings at venues around the country) are on hold while we await the outcome of discussions with regard to finance with the HSANZ.

Patricia

Tea Room Guru

Dear Tea Room Guru,

I am worried that I just can't keep up. The other nurses on my unit are always wearing new bangles, bracelets and rings and I have nothing to show but a small birthmark and a moderate tan. What can I do – should I sell my car to buy more jewellery or take out a personal loan ?

Well, you are a plain Jane aren't you! My first thought was to remortgage the house but then I took a moment to contemplate life, the microbe and everything and re evaluated that thought.

Then I remembered a paper by Bartlett et al (2002) that found that the bacterial counts on the skin beneath finger rings were nine times greater than on the respective jewellery surfaces suggesting that however good hand washing techniques are they can never be totally efficient and get underneath to all those bugs hiding under there. The lowest bacterial counts were found on the control areas of skin, rising on the jewellery surfaces, with the highest counts being on the skin tested under the jewellery (P<0.0001).

In fact, Kelsall et al (2006) isolated the following collection from the veritable zoos lurking underneath rings in theatre staff (the number denotes positive swabs) ; Coagulase-negative staphylococci 150, other skin flora 50, Gram-negative cocci 9, Pseudomonas spp. 1, Staphylococcus aureus 4. .

In addition – just in case you thought this an alternative beauty option, wearing artificial fingernails or extenders has been shown to increase sub-ungual bacteria.

The CDC estimates that every year in the United States 7% to 10% of patients contract a hospital-acquired infection, resulting in approximately 80,000 deaths.

Since the early 19th century, handwashing has been known to be the single most effective method of halting the spread of disease but I guess you have to be able to wash those parts that are not exposed such as under watch straps and under rings, bracelets, body armour etc. So, what I suggest is keep the car and the house, and stun your colleagues with clever modifications to your uniform. You can then save both patient's lives and your money in one hit!

For more information see: http://www.cdc.gov/

If you have any of life's questions, personal problems or niggling concerns about a major decision and you can't trust your star sign – write to me:

Tea Room Guru, c/o The Editor, HNS News.

HAEMATOLOGY SOCIETY OF AUSTRALIA AND NEW ZEALAND NURSES' GROUP

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Newsletter Editor: Angela Booth

Conference Liaison: Angela Booth

If you would like to join the HSANZ, please do not hesitate to contact any of the committee members for more details. Alternatively, go to http://www.hsanz.org.au for more details.

HSANZNG (NSW) Calendar 2007

- *21 June - Infectious Diseases*
- *July – Abstracts for HAA close**
- *16 August - Idiopathic Thrombocytopenia*
- *August—Early Bird Registration closes**
- *August—Acceptance of Abstracts**
- *14 –17 October - HSANZ, ANZSBT and ASTH Annual Scientific Meeting, Gold Coast AND 1st Annual General meeting of the HNS*
- *22 November - Ethics in Haematology*

** Precise dates will notified ASAP*