

New Generation of Intravenous Iron for Iron Deficiency Anaemia – Lower Risk of Allergic Reactions

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Intravenous (IV) iron is indicated for the treatment of iron deficiency anaemia when oral iron is ineffective or intolerant to patients. One of the major barriers for doctors to prescribe parenteral iron is the well-published severe allergic reactions associated with earlier generations of IV iron. The newer generation of IV iron (non-dextran) is considered safe with low risk of severe allergic reactions, including life-threatening anaphylaxis.

From May 2016 to October 2017, 11 women at a median age of 48 years with iron deficiency anemia related to menorrhagia, to whom oral iron therapy had failed, received IV iron in the medical day ward in PYNEH. All received iron isomaltoside 1000 (Brand name: Monofer[®]) 1000 mg (diluted in 100 ml normal saline; maximum dose 20 mg/kg) infused intravenously over 1 hour. All were monitored for allergic reactions during infusion and for 60 minutes post-infusion. Outcome was as follows:

| Number of Patients | Result |
|---|---|
| 9 patients | Completed IV iron uneventfully |
| 1 patient | Reported development of urticaria two hours post-infusion after she arrived home. Condition remained stable afterwards. |
| 1 patient - with a history of multiple drug allergies | Failed to complete the infusion due to bronchospasm. Stabilized soon with intravenous hydrocortisone and termination of IV iron infusion. |
| Overall | |
| Before | After |
| Median Hb 7.7g/dl [range 6.8- 9.7 g/dl]; Serum ferritin 6.5 pmol/l [range 4.8-51 pmol/l] | Median Hb level was increased by 2.9 g/dl (range 1.7-4.4 g/dl); Serum ferritin raised to at least 112 pmol/ L after a median of 26 days post dose (range 13-126 days). |

The risk of anaphylactoid reactions of the IV iron used in this cohort, i.e., iron isomaltoside 1000, is uncommon (ranged 0.1% - 1%)¹. Facilities and staff trained in the management of anaphylaxis should be available when using IV iron. At the time of writing, another IV iron available in the HA Drug Formulary is ferric saccharate (Brand name: Venofer[®]).

Tips

1. When using IV iron, the recommended rate of infusion should be strictly complied, as rapid infusion is associated with a higher risk of adverse reactions.²
2. Hypersensitivity reactions had also been reported after previously uneventful doses of parenteral iron. Therefore, patients should be observed for adverse effects during, and for at least 30 minutes following each IV iron infusion.
3. Higher risk of adverse reactions towards IV iron is seen in patients with a history of more than one drug allergy, severe asthma, eczema or atopic allergy, and inflammatory conditions (e.g., systemic lupus erythematosus, rheumatoid arthritis).

In summary, the newer generation of IV iron is well tolerated and efficacious in correcting iron deficiency anaemia related to chronic blood loss. With appropriate use, it could help minimizing the requirement of red cell transfusion.

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Editorial Comments

Correction of iron deficiency can substantially reduce the need for blood transfusion and alleviate the demand for blood supply. In this article, Dr B Kho and Ms. C Fan share their successful experience in treating anemia associated with menorrhagia using a relatively new preparation of intravenous iron. Allergic reactions are uncommon but should be managed by properly trained staff.

Dr S L LUI

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Reference :

1. MonoFer Summary of Product Characteristics. Pharmacosmos A/S; 2015.
2. Rampton D, Folkersen J, Fishbane S, et al. Hypersensitivity reactions to intravenous iron: guidance for risk minimization and management. Haematologica 2014;99:1671-6.

Person-Centred Care Approach for Palliative Care

By **Palliative Care Team**, Department of Medicine & Geriatrics, Our Lady of Maryknoll Hospital

As the first hospital in Hong Kong to establish palliative care in 1982, Our Lady of Maryknoll Hospital (OLMH) has taken the move to transform the disease-centred approach into person-centred care that enables patients to live as active as possible till the end of life. Truly, it is the combined effort of the entire hospital for the on-going strike of quality care for patients and their families in facing life-limiting illnesses.

For recent development, with the engagement of various allied health services, we identified and met the multi-dimensional needs of patients along their disease trajectory. Since the commencement in 2012, the Enhanced Psychosocial Services Program has improved the service coverage from 19% to 65% for patients and caregivers. Besides, the blanket coverage of palliative care inpatients has been provided by Dietetics, Occupational Therapy (OT) and Physiotherapy since 2015. A majority (> 90%) of patients and families were satisfied with the timely nutritional interventions in 2016. Between January and April 2016, among the patients who discharged home, pre-discharge home assessment was delivered to 86% of them by OT service.



Palliative Care Team members, Central Nursing Division and ACHS surveyors on 15.3.2017



Loving care

Through the enhancement of the Care Plan for the Imminently Dying, we provide integrated care to patients and caregivers in the last hours or days of life in the palliative care unit. In general medical wards, Care of the Dying Flowchart serves as a quick reference for issues surrounding death.

As a staff empowerment plan, Pain Link nurses are recruited from general wards and trained in nursing pain interventions using the Log-book exercise, in which the average pain score of 21 patients decreased from 2.3 on admission to 1.3 upon discharge in a pilot project.

Care for the dying and bereaved is neither a rank to score in examination nor a brand to build in medical service. Moreover, only a focused heart could discern subtle needs during the vulnerable moments of patient's life.

Editorial Comments

The four critical elements that foster elite patient centred services are explicitly illustrated by the palliative care team of OLMH, i.e. matching patient needs based on multifaceted assessments, standardising practice by use of flowcharts, engaging staff through empowered link nurses and penultimately measuring patients' experience. Senior managers of any discipline should always take references to these four pillars for any planning in service improvement.

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Is the Influenza Vaccination Effective?

By **Chief Infection Control Officer Office, HAHO**

The World Health Organization (WHO) provides a guide for the development and production of influenza vaccines for the next influenza season. In contrast to many other vaccines, the components in influenza vaccines have to be evaluated and updated yearly because circulating influenza viruses are constantly changing (antigenic drift) to evade host immunity.

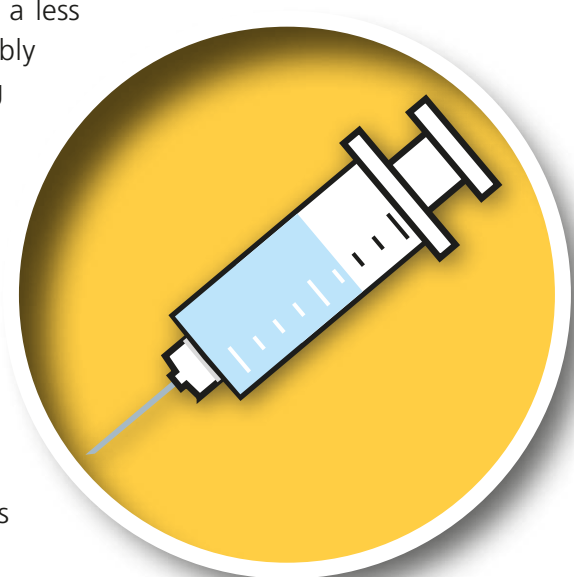
The latest WHO recommendation on Flu A (H3N2) virus component in the influenza vaccines for Southern Hemisphere 2018 influenza season is A/Singapore/INFIMH-16-0019/2016 (subclade 3C.2a1), in view of the genetic analyses of circulating Flu A (H3N2) strains showing considerable genetic diversification of the haemagglutinin (HA) gene from the current vaccine virus A/Hong Kong/4801/2014 (clade 3C.2a).

| 2017-2018 Northern Hemisphere (including Hong Kong) | 2018 Southern Hemisphere |
|---|---|
| A/Michigan/45/2015 (H1N1)pdm09-like virus | A/Michigan/45/2015 (H1N1)pdm09-like virus |
| A/Hong Kong/4801/2014 (H3N2)-like virus | A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus |
| B/Brisbane/60/2008-like virus | B/Phuket/3073/2013-like virus |
| B/Phuket/3073/2013* | B/Brisbane/60/2008-like virus* |

* It is recommended that quadrivalent vaccines containing two influenza B viruses

The underlying causes for limiting the effectiveness of influenza vaccination are multiple, which may include egg-adapted genetic changes during vaccine propagation and the frequent antigenic changes among the circulating strains. Nevertheless, even a less than desirable protective effect of influenza vaccination could possibly afford a substantial health outcome in a positive way especially among the elderlies and high risk populations.

In the end, the prevention of influenza transmission in hospitals rests with a multi-pronged control measures that are conscientiously observed by all staff, patients and visitors. In addition to influenza vaccination for both patients and healthcare workers, early detection of influenza cases through polymerase chain reaction (PCR) testing and prompt implementation of infection control measures coupled with universal practice of putting on surgical mask in clinical areas and meticulous hand hygiene practice are indispensable in safeguarding against any cross transmission.



Editorial Comments

Seasonal influenza surge does add significant demand to the already overloaded clinical service. If we can do something to reduce the severity of the demand surge, for example, receiving influenza vaccine timely and implementing proper hand hygiene, we can achieve the win-win situation of protecting our patients as well as lessening the workload of our colleagues.

Dr K H LAU
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Success on Staff Influenza Vaccination

By **Dr May KP LEE**, Associate Consultant (Microbiology), **Dr Raymond LAI**, Chief of Service (Microbiology), **Dr Augustine LAM**, Consultant (Family Medicine), Prince of Wales Hospital

New Territories East Cluster

Vaccination of healthcare workers against influenza is an important patient safety initiative. Influenza vaccination protects both healthcare worker and patients, and is a cost effective preventive measure. However, healthcare worker influenza vaccination rate often remains below the targeted level as recommended by international authorities. Bundle of strategies were incorporated in influenza vaccination campaign among healthcare workers in NTEC in 2016/17 and 2017/18 to promote uptake of vaccination. NTEC Staff vaccination rate increased from 20% in 15/16 to 33.5% in 16/17 and 41.9% in 17/18.

Strong and visible leadership

Senior management including COSs, HCEs, CGMs and CCE supported the campaign symbolically and also involved directly in the campaign in substantive ways.

Dedicated Flu team

A very structured NTEC GVP committee that includes all hospital representatives (e.g. HR, pharmacy, ICN, SOPCs, GOPCs, and Allied Health Professionals) forms a strong network both horizontally and vertically.

Free readily available vaccine and convenience to get a flu vaccine is the KEY to the success. With easy checking at CMS vaccination module, we can offer flexible vaccination at convenient

1. Location, e.g. staff clinic, canteen, meeting places, doctor lounge, working places....., AND
2. Time/ occasions, both scheduled and ad-hoc vaccination

Extensive communication

1. Staff forums and educational sessions to deliver objectives, messages and clinical evidence of health care workers flu vaccination as an important measure to protect staff, relatives and patients.
2. Prompt clarification of misunderstandings at website.
3. Photos sharing of flu vaccination promotion activities at website.
4. Creative promotional activities: Pop songs with Flu vaccine lyrics (e.g. Let it be, 皆大歡喜)

Incentives

1. Drink coupons, Pins
2. Vaccination champions, daily reporting and frequent updating of staff vaccination coverage with regular reports and accessible at website.



Editorial Comments

Engagement of staff has always been a challenging task. The staff vaccination program in NTEC combined multiple elements in making this possible. It has demonstrated strong leadership and being complimented by multi-pronged approach of communication and easy accessibility of influenza vaccine. All of these contributed to the excellent results with record high staff influenza vaccination rate.

*Dr Wing Yee SO
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