ISOPP XIII International Symposium on Oncology Pharmacy Practice Conference Review™

Melbourne, Australia, May 2012

In this review:

Welcome to this review of the XIII International Symposium on Oncology Pharmacy Practice.

The International Symposium on Oncology Pharmacy Practice (ISOPP) meeting is held every 2 years, and is an event that brings together oncology pharmacy practitioners from all over the world. ISOPP XIII was held in Melbourne, Australia, from 9th to 11th May 2012, with delegates from every continent (except Antarctica) attending. Generally the program is designed to stimulate debate and discussion, with the scientific program including sessions on recent advances in cancer therapeutics, safety issues, innovative concepts and other areas to improve patient outcomes.

More importantly, ISOPP allows an opportunity for delegates from around the world to network with their colleagues, exchange ideas and set up research opportunities.

Jim Siderov, Chair of the ISOPP Standards Committee, chose the presentations and abstracts reviewed in this publication based not only on where his interest lies, but to also reflect on the ideals of the ISOPP meeting.

I hope you find the Conference Review stimulating and I look forward to your feedback.

Kind Regards,

Dr Janette Tenne

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Improving cancer outcomes – the responsibility of every health professional

Author: David Currow

Summary: This plenary highlighted the importance of improving outcomes for patients with cancer, with an overview of key ways in which health professionals can support these outcomes.

Comment: A thought-provoking plenary to commence the ISOPP meeting. The take home message for me was that we as Pharmacists can influence outcomes for cancer patients, and that we can lessen the impact of cancer across our community. How can we do this? Pharmacists have a unique role in health education through "health literacy". Making patients better understand the quality of the advice they are given, where they can find this advice and how to put that information into action. A Pharmacist being involved in cancer prevention is a role which we need to further explore. Finally, the take home challenge for ISOPP is to ensure that opioid availability for all patients is a priority globally to ensure adequate pain management is sustained for all our patients.

For more information about ISOPP XIII go to http://www.isoppxiii.org

Translational research – what does this mean for the patients?

Author: Dan Mellor

Summary: This presentation highlighted how translational research for cancer therapy is progressing in the right direction, with some patients already benefitting from the discovery of treatments designed to target the molecular or cellular level. From the year 2000, an average of one targeted oncology drug has reached the market each year. In 2012, there are now 500 targeted therapies available, with as many as 100 biomarkers identified. For patients, this has meant an expedited availability of new drugs for cancer, with important advancements in the treatment of melanoma and non-small cell lung cancer. However, the presentation also underlined the fact that clinical research needs to change to maximise benefits to patients. RCTs of breast and colorectal cancer reveal that new effective adjuvant treatments are associated with decreasing absolute benefit, while new treatments of metastatic disease show unchanging levels of benefit at rapidly increasing costs. The presentation concluded that there is a long way to go before patients will really benefit from truly personalised cancer drug treatment.

Comment: Perhaps a more pertinent question for us is – what does it mean for the Oncology Pharmacist? Much is being discussed about translational research, but it is not the magic bullet we have hoped for in the treatment of cancer. Translational research has allowed the acceleration from biomarker discovery to drug approval for cancer therapy. These effective targets are beneficial for specific patients, but this has yet to transform into fully personalised medicine. Many questions remained unanswered. Practitioners in the area of cancer therapy need to remain up to date with changing concepts in the field of translational research. We need to ensure we can inform our patients on the most appropriate therapies.

Plenary 2.
http://www.isoppxiii.org/images/dan%20mellor%20.pdf

Isolators vs cytotoxic drug safety cabinets

Author: Mel Davis

Summary: This review explored isolator and containment workstation technology and their capabilities to prevent/minimise operator exposure to cytotoxic drugs. Safety investigations suggest that there are no significant containment performance differences between isolators and CDSCs, both of which are superior to the performance of biological safety cabinets (BSCs). In view of the significant price advantages and greater productivity offered by CDSCs compared with isolators, this review proposes that CDSCs should be used. It concludes that consideration be given to operating all devices in containment cleanrooms such as those that used for CDSCs, due to evidence of chemotherapy drug residues on vials and sublimed drug vapours contaminating the work environment around BSCs, CDSCs and isolators.

Comment: One of the hot topics for pharmacists involved in cytotoxic preparation is environmental surface contamination and occupational safety. This abstract is a timely reminder that while we strive to reduce contamination and invest in closed-system drug transfer devices, we also need to take a step back and have a look at our engineering controls. Several types of cabinets are available for the preparation of cytotoxic chemotherapy. There have been no direct comparative studies of these cabinets. We need to ensure that the option we choose is appropriate for the task at hand. Of importance is the surety that the cabinet conforms to an acceptable standard. Of course, the cabinet alone is not sufficient. An integrated system dedicated to the production of chemotherapy in a dedicated cleanroom is of equal importance. Finally, we should still remember one important point. Based on published data, whatever cabinet we choose, surface contamination with cytotoxic chemotherapy outside of the controls of the cabinet still occur.

Concurrent Session 3.
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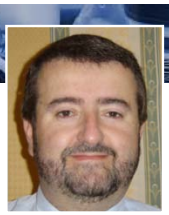

Independent commentary by JIM SIDEROV, BPharm MClinPharm BCOP FSHP.

Jim is currently the Senior Pharmacist for Cancer Services at Austin Health and Chair of the ISOPP Standards Committee. He has published widely in peer-reviewed journals, and presented at local, national and international conferences. He has also lectured to a number of undergraduate and postgraduate programs at both Melbourne and Monash Universities.

Jim's major interests are solid tumours, with a particular interest in colorectal cancer. He also has an interest in occupational health and safety issues in the handling of cytotoxic drugs.

Are we contaminating our workplace and staff with cytotoxic drugs? The potential....

Author: Julia Bates

Summary: This paper discussed outcomes from a Queensland study that investigated the potential of using closed-system compounding devices to reduce surface contamination and minimise staff exposure in pharmacy and drug administration areas. The researchers initially examined the process from the sterile pharmacy through to the patient chair, to test for spread of contamination with cyclophosphamide, ifosfamide and fluorouracil. Both wipe and urine sampling were repeated with the same areas and staff after 6 months. At this timepoint, contamination was reduced by an overall 95% from initial sampling in the Pharmacy, while the use of closed-system devices had no impact upon contamination of the treatment chair, using standard administration procedures. The paper goes on to describe the changes underway that are intended to maintain the Pharmacy results, reduce surface contamination on Day Care chairs and eliminate detectable drug uptake by nurses administering chemotherapy doses.

Comment: This is yet another study showing the improvement seen by the use of a closed-system drug transfer device in reducing cytotoxic surface contamination in the workplace. However, the hidden take home message is the collaboration pharmacists and nurses can have in reducing contamination. Surface contamination with cytotoxic drugs is not confined to the Pharmacy. This study showed that through working together with our nursing colleagues we can minimise cytotoxic contamination not only in our workplace, but in the day treatment areas as well.

Concurrent Session 11.
http://www.isoppxiii.org/images/julia%20bates.pdf

Chromosome 5 and 7 abnormalities in oncology personnel handling anticancer drugs

Author: Melissa McDiarmid

Summary: This US-based study demonstrates exposure to genotoxic drugs in oncology work settings, despite reported use of safety practices. Peripheral blood from 109 health care personnel was examined with probes for targets on chromosomes 5, 7, and 11. Excesses in structural (0.18 vs 0.02; p=0.04) and total abnormalities (0.29 vs 0.04; p=0.01) of chromosome 5 were observed in the high-exposure group compared with unexposed subjects. Increased incidence rate ratios (IRRs) for abnormalities of chromosome 5 (IRR, 1.24; p=0.01) and for either chromosome 5 or 7 (IRR, 1.20; p=0.01) were obtained at 100 handling events. Effect sizes were augmented 2- to 4-fold when alkylating agent handling alone was considered.

Comment: When I started working as an Oncology Pharmacist some 25 years ago, the issue of occupational exposure was in its infancy. Scatterings of articles focussed on nursing staff who handled (or even prepared) chemotherapy in an uncontrolled way. Over the years, other studies have shown excesses in non-specific measures of genotoxicity, such as sister chromatid exchanges. Based on this non-specific data, pharmacists have had the misconception that the safety aspects we currently follow are sufficient to protect us. However, this study has made people stop, think and hopefully re-evaluate their practice. I can already hear the sceptics gathering their retort. These are the individuals we need to convince with strong data like this.

J Occup Environ Med. 2010;52(10):1028-34.
http://tinyurl.com/7n57wzz

Credentialing competencies panel

Author: Barry Goldspiel

Summary: This review of the credentialing and competency pathways for Oncology Pharmacists discussed case presentations and the assessment of competence.

Comment: Arguably one of the more interesting plenary sessions was the one focussing on credentialing and competencies. An international panel was assembled to discuss various aspects of credentialing and competencies for the Oncology Pharmacist in their respective countries. Similar problems are encountered worldwide, from definitions to peer support and even research funding in this area. For Pharmacists practicing in Australia we should be excited that the credentialing and competency pathways are well established. This is also a unique opportunity for ISOPP to take the lead and be at the forefront in establishing an international credentialing and competency framework.

http://www.isoppxiii.org/images/credentialisopp2012.pdf

Streamlining workflow in an oncology day unit

Author: Shaun O'Connor

Summary: This presentation discussed outcomes from a review of workflow processes within the St Vincent's Hospital's Day Oncology Unit in 2010. Using Lean methodology to track and analyse patient movement, the study researchers were able to highlight opportunities for improvement in flow and a working party was formed to create strategies to rectify bottlenecks and improve overall flow of both patients and information.

Comment: Ambulatory treatment centres are getting busier, as are patient demands for a more streamlined visit for chemotherapy. While we sometimes think the answer is more staff, this is not always possible. Here was a strategy which while simple in design, is greatly beneficial. Do you know the journey a patient has from clinic to treatment and home? Unless we follow a patient's day at hospital, we never know (although we probably think we do). Using a time in motion analysis and then employing lean management strategies can improve workflow and make the patient's journey all that little smoother.

Drug shortages: origin and strategies for management

Author: Johan Vandenbroucke

Summary: With the increasing frequency of oncology drug shortages worldwide, human resources are needed to properly respond to and manage these shortages. This presentation discussed the magnitude of the problem, the impact upon those involved (i.e., patient, physician, nurse, [hospital] Pharmacist, authorities, and the pharmaceutical industry), the causes, suggestions for what steps can be taken to identify and manage drug shortages, and minimise their impact.

Comment: What do you do when you go to the cupboard and the shelves are bare? The problem of drug shortages has affected us all, no matter which country we reside in. What can we do as health professionals to minimise the impact of this problem? Some may say not much. Professional bodies such as ISOPP do have a role in informing practitioners of problems and putting forward alternative proposals for drug procurement or substitution. However, we as practitioners at the coalface also play an important role. A common sense approach involving local colleagues, hospital authorities, and industry is needed. Communication of upcoming supply problems, minimising hoarding of drug supplies, and assisting each other will help us to reduce potential hardship for our patients.

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Clinical trial update in brain tumours

Author: Hui Gan

Summary: This paper outlined the role of chemotherapy in the multi-modality management of adult patients with brain tumours. In particular, the addition of temozolomide to postoperative radiotherapy has significantly prolonged their survival. However, outcomes remain poor and most patients relapse. While ancillary treatments including anticonvulsants and steroids have proven beneficial, but are associated with significant side effects. The paper went to describe how the increasingly better understanding of the biology of adult brain tumours means that additional targets are being sought against which novel therapies can be developed, and researchers are seeking reliable biomarkers to guide treatment selection and personalise treatment of patients. The paper also discussed the current trials available to brain tumour patients in Victoria.

Comment: Advances in the treatment of brain tumours over the last 30 years with chemotherapy have been slow. It was not until the availability of temozolomide that the landscape for treatment has changed. With this change has come an increasing role for Oncology Pharmacists to be involved in the care of these patients. For these patients, temozolomide protocols can be confusing. Couple this with the potential for drug interactions with anticonvulsant drugs; we play an essential role in the education of these patients. This role should not be limited to counselling about their chemotherapy, but assisting these patients with their other medications including corticosteroids, anticonvulsants and the use of medication compliance aids.

Pharmacogenomics: integration into an Oncology Pharmacist's daily practice

Author: Jill Kolesar

Summary: The aim of this presentation was to improve understanding of the clinical use of pharmacogenomics testing including BRAF, ALK, EGFR and KRAS in clinical oncology practice, explain the characteristics of pharmacogenomics testing that determine rapid incorporation into clinical practice, and clarify those strategies beneficial for assessing pharmacogenomics testing and incorporating testing into clinical decision making. The CPIC (Clinical Pharmacogenetics Implementation Consortium of the Pharmacogenomics Research Network) was established in 2009, comprising Pharmacogenomics Research Network members, PharmGKB staff, and experts in pharmacogenetics, pharmacogenomics, and laboratory medicine. The goal of the CPIC is to provide peer-reviewed, updated, evidence-based, freely accessible guidelines for gene/drug pairs, in order to facilitate the translation of pharmacogenomic knowledge from bench to bedside.

Comment: We are in a new era of cancer therapy. While the traditional cytotoxic drugs still play a role in cancer therapy, the new science of pharmacogenomics is upon us. With this comes a new responsibility for the practising Oncology Pharmacist. Drugs targeted at specific sites are entering the market faster than traditional therapies. With this comes unknown toxicities. The Oncology Pharmacist needs to be vigilant in adverse drug management, with postmarketing surveillance. The other dilemma we face is ensuring that we as practitioners understand these newer therapies, and work on strategies to assist our patients in minimising or eliminating adverse events.

http://www.isoppxiii.org/images/jill%20kolesar.pdf

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