concerned about an author who declares funding from the National Health and Medical Research Council as we might be about someone who obtains research funding from a pharmaceutical company? What about an author who works in an academic institution that holds a global licence for a product? Should we exclude someone who is an adviser to the Therapeutic Goods Administration, but has also been an adviser to industry? There are many possible questions about potential conflicts of interest, but the Editorial Executive Committee believes that those 11 articles should still have been published.

While publishing declarations of interest at the end of articles may not solve all the difficulties of competing interests, it informs readers. Journal readers are quick to comment if their perceptions about a conflict of interest differ from those of the authors.<sup>9-12</sup>

The Editorial Executive Committee does not think it should refuse to deal with people who may be very knowledgeable about a treatment because they have participated in industry-funded research. Often their expertise is the source of the conflict. Although assessing conflicts of interest can be difficult, the Editorial Executive Committee believes that the disclosure and peer-review processes of *Australian Prescriber* should mitigate the risk of bias.

Competing interests are everywhere, but they can be managed. ◀

John Dowden is Editor of Australian Prescriber.

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## Letters to the Editor

# Janus kinase inhibitors - holistically seeing two faces

Editor, - I was interested to read the recent article on Janus kinase inhibitors by Paul Kubler (Aust Prescr 2014;37:154-7). In addition to being pro-cancer, the Janus kinase-Signal Transducer and Activation of Transcription (JAK-STAT) pathway is part of a central physiological pro-survival mechanism.¹ Thus pharmacological targeting of this signalling cascade may pose potential threats, for example to cardiac integrity.² Targeting JAK-STAT will also potentially challenge neuroprotection.³ Conversely, activation of JAK-STAT is proposed as a tangible approach to managing heart disease.⁴

The message is that there is a clinically highly relevant 'crossroads' between physiology and cancer, thus maintaining the truly holistic viewpoint. Therefore treatments aimed at targeting cancer necessarily target normal tissues and in turn define

burgeoning fields within cancer-related therapy such as cardio-oncology. Activating a pro-survival pathway such as JAK-STAT therapeutically to manage heart disease removes a barrier in the multiple-step process of oncogenesis. Targeting the JAK-STAT pathway is in a sense 'non-specifically specific'. The target may be a defined one, but the target itself is universally expressed.

Future developments in therapeutics must be designed to be 'specifically specific' to the disease target to be effective, yet with little fear of resultant adverse reaction.

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The Editorial Executive Committee welcomes letters. which should be less than 250 words. Before a decision to publish is made, letters which refer to a published article may be sent to the author for a response. Any letter may be sent to an expert for comment. When letters are published, they are usually accompanied in the same issue by any responses or comments. The Committee screens out discourteous inaccurate or libellous statements. The letters are sub-edited before publication. Authors are required to declare any conflicts of interest. The Committee's decision on publication is final.

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#### Paul Kubler, the author of the article, comments:

It is not surprising that therapies targeting the JAK-STAT pathway have the potential for diverse applications, as over 500 kinases have been identified in the human kinome. Janus kinases belong to the tyrosine kinase family, of which there are at least 90 recognised members.

Although there is a large volume of published data about the JAK-STAT pathway, it is mostly preclinical. Currently, very few drugs targeting Janus kinase signalling have been approved by regulatory authorities and are in clinical use. The focus of the article was on those mechanisms which have current clinical applications.

The statement of whether specifically targeting selective errors of the immune system (that is being specifically specific) versus inhibiting multiple cytokines (that is being non-specifically specific) is a better way of improving effectiveness and reducing adverse effects, is a vexed question with no clear answer. The clinical data in the treatment of autoimmune diseases such as rheumatoid arthritis and systemic lupus erythematosus do not consistently support this hypothesis. The patho-aetiology of many autoimmune diseases is characterised by multiple abnormalities of the immune system with cascading effects over time and alternative pathways of disease perpetuation after onset, hence I would suggest specifically specific therapies are less likely to be effective from a biological plausibility perspective as the disease progresses. If we could identify and treat disease in a pre-clinical phase, specifically specific therapies have the potential to be more effective. However, the answer to this is unknown.

## Cost shifting and the quality use of medicines

Editor, – The recent editorial by Andrew McLachlan (Aust Prescr 2014;37:110-1) overlooked an interesting point about reforms to the Pharmaceutical Benefits Scheme (PBS) in public hospitals. In some states, the reforms have seen patients discharged with one month's supply of their medications, in place of the traditional few days' supply currently given in hospitals not affected by the reform.<sup>1</sup> The model

of minimal supply forces patients to visit their GP and pharmacy as soon as possible after discharge.\(^1\) This has significant impacts on continuity of care – if a month is left from discharge to visiting their GP, problems due to changes in medications at discharge may not be identified.\(^1\)2

PBS reform is intended to decrease confusion about changes to medications. However, it will not achieve this as hospitals will continue to keep only the single contracted brand of medication and there may be an increase in readmissions due to patients not being followed up by the GP after discharge. Further to this, the PBS reforms in public hospitals have given pharmacy departments the opportunity to profit from patients' discharge medications, causing hospital pharmacies to focus on supply rather than clinical practices.<sup>3,4</sup> This draws pharmacists away from important clinical roles including medication safety, counselling and education services, not to mention liaison with community services including the GP and pharmacy about the changes to patients' medication regimens.3,4

Given that it has been shown that clinical pharmacists in hospitals reduce adverse drug events and improve patient safety, funding systems should focus on streamlining processes, community liaison and integration with community-based programs, not on increasing the burden on already short-staffed hospital pharmacy departments.<sup>3,4</sup>

Mary Wilkin Clinical pharmacist Manning Base Hospital Taree, NSW

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#### Andrew McLachlan, author of the article, comments:

Mary Wilkin has identified some important realities and possible implications related to medication access and transition of care. Her comments about the possibility of continued confusion related to medicines, and remuneration shifting the clinical role of pharmacists is well made and further highlights the need to carefully consider the implication of change in a complex health system. Mary Wilkin's letter further highlights the

need to design well thought out solutions guided by relevant medicines policy.

lan Coombes, Director of Pharmacy, Royal Brisbane and Women's Hospital, and member of the Australian Prescriber Editorial Executive Committee

Mary Wilkin has highlighted that there are risks when introducing Pharmaceutical Benefits Scheme (PBS) reforms to public hospitals. The reforms could shift the pharmacy's focus towards satisfying PBS regulations for reimbursement. This raises questions about the purpose of each pharmacy department. If public hospitals do not focus on patient-centred review, reconciliation and facilitation of medication liaison with primary care, the quality use of medicines is at risk.

I believe our department learnt the harsh reality that if the hospital pharmacy's primary role becomes dispensing PBS prescriptions and it focuses more on optimising our reimbursement than ensuring appropriateness, then safety and continuity of treatment become secondary. This places the patients at risk of adverse events.<sup>1</sup>

As a result of our experience, we chose to actively disinvest in dispensing drugs at discharge where feasible without compromising patient care. We realigned our roles on ensuring early clinical review, completion of medication action plans and close collaboration with patients, carers and hospital staff to optimise medication outcomes in hospital. On discharge our goal is to reconcile all PBS discharge prescriptions and only dispense what is required. We should focus on providing medication information for patients and carers and facilitating medication liaison with the primary care team.

Pharmacy has to use any healthcare reforms as a trigger to re-evaluate its role in a complex system in order to maintain its ability to optimise the quality use of medicines. As we stated in our previous article, 'a focus on tasks and processes in hospitals runs the risk of removing the patient as the focus of care.'

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## **Book review**

### **AMH Aged Care Companion**

Adelaide: Australian Medicines Handbook; 2014 245 pages

Electronic version also available

This companion is intended primarily for general practitioners, nurses and pharmacists working in aged-care settings. It is also relevant to the care of frail older people living in the community.

The book contains almost 70 chapters, each addressing one or more common clinical problems in aged care. The chapters are arranged by organ system, and structured to cover key diagnostic issues, considerations before starting treatment, non-drug and drug treatments, safety and useful resources. The book has a number of helpful tables and appendices. The advice is based on best available evidence, although neither this nor the recommendations are graded. The Editorial Advisory Committee and reviewers are an impressive group of experts.

It is odd that there is no chapter about chronic kidney disease. Prescribing in renal impairment is discussed briefly in the introduction, but with no mention of strategies to slow progression or avoid nephrotoxicity (although the risk from non-steroidals is stated in the chapter on osteoarthritis).

The other notable gap is lack of a chapter on quitting smoking. Although a number of the chapters recommend smoking cessation, nicotine replacement and other pharmaceutical aids are not discussed.

Some chapters are more comprehensive than others. The chapter on depression recommends psychosocial interventions and physical activity, but does not mention other lifestyle changes, including quitting smoking and a healthy diet, for which there is growing evidence. The chapter on diabetes does not discuss management of albuminuria. Absolute vascular risk assessment and management is a particularly challenging area in elderly patients but is not covered in detail. A future edition of the companion

could usefully provide more comprehensive guidance.

Any textbook is inevitably incomplete. The Aged Care Companion is of undoubted value in the care of older people, but even alongside the Australian Medicines Handbook does not provide all the answers.

#### **Tim Usherwood**

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