Background

- The average age of people living with HIV (PLWHA) in Australia is increasing due to improved survival and increasing age at time of diagnosis\(^1\)
- In Australia, the proportion of people with HIV over the age of 55 years is estimated to have increased from 2.7% in 1985 to 11.2% in 2000 and 25.7% in 2010, with a projected further increase to 44.3% by 2020\(^2\).
- In large overseas cohorts, increasing age has resulted in the rise in co-medication prescribed.\(^2\) The combination of polypharmacy and ART can significantly increase the chance of drug-drug interactions and potential adverse outcomes for patients\(^3\).

Melbourne Sexual Health Centre (MSHC) is the busiest antiretroviral therapy (ART)-dispensing pharmacy in Australia, providing ART to over 2500 PLVHA. Co-medications are often not dispensed at the sexual health centre and patients are not always able to provide this information in the busy pharmacy environment, thus performing a comprehensive clinical pharmacy review at the centre is not always possible. Working with clinicians at the Centre Clinic, pharmacists at MSHC developed a care plan program, providing a clinical pharmacist review and written report detailing medication adherence and potential pharmaceutical concerns.

Aims

- To report the findings of a pharmacist care plan program for people living with HIV/AIDS (PLWHA) seen at a high HIV caseload General Practice (GP) clinic.

Methods

A pharmacist care plan system for PLWHA currently taking antiretroviral therapy (ART) was implemented between Melbourne Sexual Health Centre Pharmacy and Centre Clinic, a high HIV caseload GP clinic. With patient consent, a complete medication list and relevant blood results were sent to the pharmacy. In response, HIV specialist pharmacists performed a comprehensive clinical pharmacy review, without a patient interview, and sent the resulting care plan to the clinic.

- GP clinic faxes a medication list and relevant blood results to MSHC Pharmacy
- Pharmacist (without patient interview) provides a comprehensive clinical pharmacy review
- A 1-2 page proforma developed to standardise reports

Results

- 156 pharmacist care plans were completed. The median age was 44.5 years (range 18-78), and 48 (28.2%) patients were aged over 50 years.
- 99 (63.5%) patients were taking five or more medications (polypharmacy), including their ART.
- Significant drug interactions were identified in 62 (39.7%) patients, including 31 patients (19.9%) with two or more interactions.
- 85% of patients aged over 50 were taking five or more medications; 33 (68.8%) had at least one drug interaction reported and 18 (37.5%) had two or more.

Drugs

Interaction + potential clinical problem

Suggestion

- Diuretics with protease inhibitor
- Diuretics levels increased by up to 4-fold
- Changes to blood pressure and heart rate
- Avoid if practical, or use increased dose possible and monitor closely

- Fluconazole with protease inhibitor
- Increased creatinine levels - possibility of Cushing’s symptoms
- Be cautious of salicylates or PPIs

- Sildenafil with protease inhibitor
- Sildenafil concentrations increased by up to 11 -fold
- Use a low dose, with caution and infrequently

- Cotrimoxazole and fluconazole
- cotrimoxazole levels increased by 2-fold
- Use a lower dose for short duration only

- Simvastatin (10mg) and nevirapine
- Nevirapine may reduce levels of simvastatin
- simvastatin likely ineffective as such a low dose
- Increase dose or use alternative

Adherence was assessed for 136 (87%) of patients. Of these, 89% had at least good adherence reported (>90% of doses collected)

Limitations

- GP Medication list not be current; an interview with the patient would provide more accurate information, and lead to a more effective report
- No data was gathered assessing the consequences of the pharmacist’s recommendations
- Drug interactions were not graded by their severity or risk (however those thought to be of low clinical significance were excluded)

Conclusions

The collated findings of the pharmacist care plans demonstrate a high rate of polypharmacy and drug-drug interactions in older PLWHA. Further work is needed to evaluate the impact of HIV specialist pharmacist care plan recommendations on medication management. Expansion of this well-received program to other high HIV caseload GP clinics would support prescribers and patients across the continuum of care and optimise clinical outcomes for PLWHA.

References

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