**Abstract**

**Background**

Tyrosine kinase inhibitors (TKIs) and mammalian target of rapamycin inhibitors (mTORIs) are emerging as one of the most commonly used targeted chemotherapeutic agents in cancer treatment. As with any other medication, adverse effects are not uncommon, especially cardiac adverse effects. Given the improved survival with the use of these medications, it is anticipated that primary care providers are going to manage them and deal with the adverse effects they developed from using these medications more frequently.

**Aim**

We reviewed comprehensively the cardiovascular adverse effects of the oral TKIs and mTORIs. In addition, we offered the current recommendations regarding management of these cardiovascular adverse effects to help the primary care providers manage these side effects.

**Methods and Materials**

A formal literature review of PubMed and ClinicalTrials.gov using the following terms: “sunitinib, sorafenib, pa-zopanib, temsirolimus, and everolimus” was used, with only phase 2 and 3 clinical trials in English language and published up to April 5, 2013 were consider in this review article.

**Results**

We found that hypertension is the most commonly reported adverse effect with the use of TKIs. Pazopanib was as-sociated with the highest incidence of hypertension. 32% of the patients who received pazopanib developed grade 1/2 hypertension and 6% developed grade 3/4 hypertension. The use of oral mTORIs was associated more with endocrinological derangements including hypertriglyceridaemia and hyperglycaemia, especially with everolimus usage.

**Conclusion**

It is not uncommon to see cardiac adverse effects with the usage of oral TKIs and mTORIs.

**Keywords**

Oral TKIs, mTORIs, adverse effects, cardiac.