

# Cluster of cases of high-dose rosuvastatin–associated rhabdomyolysis and recent reduction of rosuvastatin dose for Asians in other countries

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*To the Editor*—From July 2022 to April 2023, the Hong Kong Poison Information Centre has recorded six cases of severe rhabdomyolysis associated with prescription of high-dose rosuvastatin ( $\geq 40$  mg daily). All patients were Chinese and presented with a mean creatine kinase concentration of approximately 15 000 IU/L. All except one patient developed acute kidney injury and three required temporary renal replacement therapy. Concomitant liver injury was also evident in three patients. Although statin treatment is associated with development of rhabdomyolysis, the reported incidence is rare at 0.44 per 10 000 person-years.<sup>1</sup> Nonetheless Asian patients possess pharmacogenetic factors placing them at high risk. It has been reported that Chinese subjects had a plasma rosuvastatin level 2.3 times that of white subjects, despite being prescribed the same dose.<sup>2</sup> Other risk factors include advanced age, hypothyroidism, alcohol abuse, poor renal function, vitamin D deficiency, diabetes mellitus, and drug-drug interactions. The recent clustering of six cases raised concerns about the safety of high-dose rosuvastatin in the Hong Kong population.

In mainland China, the recommended maximum daily dose of rosuvastatin is only 20 mg. It should also be noted that when product inserts of Crestor (rosuvastatin calcium) were revised in 2022 in the United Kingdom,<sup>3</sup> Australia<sup>4</sup> and Canada,<sup>5</sup> Asian ethnicity was a contraindication for prescription of Crestor 40 mg per day. Both prescribers and pharmacists should be aware of this change and doctors should be warned of the increased vulnerability of Chinese and other Asian

patients. The licenced dose of rosuvastatin in Hong Kong may need to be revised urgently.

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