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Insights on the Halal Status of Antineoplastic and Immunomodulating Agents and Nutritional and Dietary Supplements in Malaysia

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Abstract : Background: Muslims has the obligation to ensure that everything they consume including medicines should be halal. With the growing demands for halal medicines in October 2012, Malaysia has launched the world's first Halal pharmaceutical standards called Malaysian Standard MS 2424:2012 Halal Pharmaceuticals-General Guidelines to serve as a basic requirement for halal pharmaceuticals in Malaysia. However, the biggest challenge faced by pharmaceutical companies to comply is finding the origin or source of the ingredients and determine their halal status. Aim: This study aims to determine the halal status of the antineoplastic and immunomodulating agents, and nutritional and dietary supplements by analysing the origin of their active pharmaceutical ingredients (API) and excipients to provide an insight on the common source and halal status of pharmaceutical ingredients and an indication on adjustment required in order to be halal compliance. Method: The ingredients of each product available in a government hospital in central of Malaysia and their sources were determined from the product package leaflets, information obtained from manufacturer, reliable websites and standard pharmaceutical references. The ingredients were categorised as halal, musbooh or haram based on the definition set in MS2424. Results: There were 162 medications included in the study where 123 (76%) were under the antineoplastic and immunomodulating agents group, while 39 (24%) were nutritional and dietary supplements. In terms of the medication halal status, the proportion of halal, musbooh and haram were 40.1% (n=65), 58.6% (n=95) and 1.2% (n=2) respectively. With regards to the API, there were 89 (52%) different active ingredient identified for antineoplastic and immunomodulating agents with the proportion of 89.9% (n=80) halal and 10.1% (n=9) were mushbooh. There were 83 (48%) active ingredient from the nutritional and dietary supplements group with proportion of halal and masbooh were 89.2% (n=74) and 10.8% (n=9) respectively. No haram APIs were identified in all therapeutic classes. There were a total of 176 excipients identified from the products ranges. It was found that majority of excipients are halal with the proportion of halal, masbooh and haram were at 82.4% (n=145), 17% (n=30) and 0.6% (n=1) respectively. With regards of the sources of the excipeints, most of masbooh excipients (76.7%, n = 23) were classified as masbooh because they have multiple possible origin which consist of animals, plant or others. The remaining 13.3% and 10% were classified as masbooh due to their ethanol and land animal origin respectively. The one haram excipient was gelatine of bovine-porcine origin. Masbooh ingredients found in this research were glycerol, tallow, lactose, polysorbate, dibasic sodium phosphate, stearic acid and magnesium stearate. Ethanol, gelatine, glycerol and magnesium stearate were the most common ingredients classified as mushbooh. Conclusion: This study shows that most API and excipients are halal. However the majority of the medicines in these products categories are mushbooh due to certain excipients only, which could be replaced with halal alternative excipients. This insight should encourage the pharmaceutical products manufacturers to go for halal certification to meet the increasing demand for Halal certified medications for the benefit of mankind.

Keywords : antineoplastic and immunomodulation agents, halal pharmaceutical, MS2424, nutritional and dietary supplements
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