What factors to consider when advising on medicines suitable for a Halal diet?

Prepared by UK Medicines Information (UKMi) pharmacists for NHS healthcare professionals

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Disclaimer: The aim of this document is to increase awareness of the term ‘Halal’ in relation to medication and to direct readers towards further sources of information. Religious concepts presented in this document reflect information found in the reference sources cited. It is acknowledged that some of the religious concepts are subjective to individuals’ religious belief systems, which are known to vary considerably. In addition, the pharmaceutical components of medications may vary from manufacturer to manufacturer and so readers are advised to consult manufacturers directly for written confirmation of compliance with Halal manufacturing processes and ingredients. Halal certifications of manufacturers or products are also subject to expiry.

Background

There are a wide range of religions and beliefs in the UK today (1). Some religions prohibit the ingestion of certain foods and drink. For example, data from the 2011 England and Wales census indicates that 4.8% of the population may have dietary restrictions pertaining to Halal (2). How these impact on and influence attitudes to planning, giving and receiving healthcare from pre-conception right through to dying and even after death, require NHS staff and clinicians to be aware of and sensitive to the many perspectives that patients bring to ethical decision making (1). Consideration should therefore be given to the patient’s religious beliefs before prescribing drugs or treatment.

It should never be assumed, however, that an individual belonging to a specific religious group will necessarily be compliant with or completely observant of all the views and practices of that group. Individual patients’ reactions to a particular clinical situation can be influenced by a number of factors, including what branch of a particular religion or belief they belong to, and how strong their religious beliefs are (for example, orthodox or reformed, moderate or fundamentalist) (1). For this reason, each person should be treated as an individual, and those treating them should try to ascertain their views and preferences before treatment begins.

This document introduces the issues to consider when using pharmaceuticals in patients who believe in Islam.

Answer

What does Halal and Haram mean?

In Islam, Halal means ‘permissible’ whilst ‘Haram’ means ‘prohibited’ (3). The teachings of the Quran and Hadith provide Muslims with guidance on what is allowed and not allowed in all matters including personal behaviour and food/drink consumption. The aspects of Halal and Haram will be a fundamental determining factor in the decision making process by practising Muslims with respect to anything they consume, including pharmaceuticals.

Islamic law (or Shariah Law) gives Muslims the freedom to eat and drink anything as long as it is not Haram (3). A number of other Shariah Law terms may be used in relation to Halal or Haram pharmaceuticals such as Mashbooh which means that the origins of the constituent of a product are in doubt and cannot be classified as Haram or Halal. The term Mashbooh can also apply to situations where scholars or opinions may differ on whether a product is Halal or Haram. The term Tayyib (with respect to pharmaceutical products) means that the product is of good quality (a requirement of any

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product under Shariah Law) and produced under standardised processes. In terms of UK licensing, this would equate to a product and manufacturing licence (3).

Examples of pharmaceutical constituents considered Halal or Haram

Alcohol can lead to addiction, misbehaviour and negative impacts on health, therefore it is judged as Haram for Muslims. Any animal that was not slaughtered based on Shariah Law or any animal that is unhealthy, diseased or could cause death would be considered Haram. Any medicines which contain porcine or Haram excipients or ingredients may pose a problem to Muslim patients (3).

Porcine (pork) derived products will be avoided by practising Muslims; however porcine gelatin used in medicines can be contentious (4). In 2001, the World Health Organization reported on Islamic Legal Scholars’ verdict that pork gelatin is sufficiently transformed and permissible for consumption (5). For example, the gelatin which is used as a stabiliser in the intranasal influenza vaccine is highly purified. Scientific tests indicate that the gelatin in this vaccine is so degraded that the original source cannot be identified and the vaccine has not been shown to contain any detectable DNA from pigs (6). More recently in 2013 Public Health England (PHE) was made aware by some leading Muslim organisations that the WHO document was not accepted by some schools of Islamic jurisprudence (6).

Other constituents derived from animals that may not be slaughtered in accordance with Shariah Law and may be found in pharmaceuticals include bovine (cow), hamster ovary, murine (mouse), and equine (horse) (4).

In addition to the pharmaceutical constituents, the preparation process needs to be considered as products could be rendered Haram by the process (7), e.g. Halal meat cooked in sauce containing alcohol.

A practising Muslim may take all this into account when considering their medication options. Similar principles will apply to the choice of enteral feed and nutritional supplements (8).

Suppliers of Halal pharmaceuticals in the UK

At present, the production of solely Halal pharmaceuticals is limited to manufacturers’ in predominantly Muslim-based countries (7). All imported POMs have to be approved by the Medicines and Health products Regulatory Agency (MHRA) to be allowed entry into the UK, which is a huge barrier to the supply and accessibility of such medicines. However, Halal medicines may be available from some retailers for consumer purchase.

The Halal Food Authority (HFA) (http://halalfoodauthority.com/) is an example of a halal certification company in the UK. These companies certify mostly food although some over the counter (OTC) medicines are included in their lists of products – see HFA website for examples. Rosemont is an example of a pharmaceutical company that has obtained HFA certification for some of its prescription only medicine (POM) liquid formulations (9).

Where to find information about specific medicines

Healthcare professionals and patients should obtain details on the constituents and the preparation process to determine if individual products are suitable for a Halal diet. Obtaining written correspondence from manufacturers of pharmaceutical products remains a considerable challenge but would still be considered the main point of contact.

Some manufacturers are starting to respond to dietary choices by marketing products as ‘sourced from Halal gelatin’ for example (10). The Summary of Product Characteristics (SPC) should be consulted with care since the details of any Haram active ingredient/source or excipient requires an
understanding on what would be considered Haram. For example, some Muslims would consider the alcohol content in medicines acceptable since it would not cause intoxication but others may wish to avoid all alcohol containing medicines (11). Table 1 gives examples of the relevant information found in various sections of an SPC when using the electronic Medicines Compendium (eMC); this is not an exhaustive list of medications licensed in the UK.

Table 1: Examples of searches within SPCs held on the eMC to identify constituents of UK licensed medications that may be considered Haram by some Muslim groups

<table>
<thead>
<tr>
<th>Advanced search term (limited to SPC)</th>
<th>Product listed</th>
<th>eMC section</th>
<th>Relevant information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creon 40,000 capsules (12)</td>
<td>5.1 Pharmacodynamic properties</td>
<td>Contains porcine pancreatin formulated as enteric-coated (acid-resistant) mini-microspheres within gelatin capsules.</td>
<td></td>
</tr>
<tr>
<td>Curosurf (13)</td>
<td>2. Qualitative and quantitative composition</td>
<td>One 1.5 ml vial contains 120mg of phospholipid fraction from porcine lung (poractant alfa).</td>
<td></td>
</tr>
<tr>
<td>Defitelio 80mg/ml solution for infusion (14)</td>
<td>2. Qualitative and quantitative composition</td>
<td>Produced from porcine intestinal mucosa.</td>
<td></td>
</tr>
<tr>
<td>Fluenz Tetra nasal spray (15)</td>
<td>6. List of excipients</td>
<td>Gelatin (porcine, Type A).</td>
<td></td>
</tr>
<tr>
<td>Fragmin 5,000 IU (16)</td>
<td>5.1 Pharmacodynamic properties</td>
<td>Produced from porcine-derived heparin sodium.</td>
<td></td>
</tr>
<tr>
<td>Hypurin Porcine (17)</td>
<td>Active ingredients</td>
<td>Insulin, porcine insulin, pork insulin</td>
<td></td>
</tr>
<tr>
<td>Pancrease HL (18)</td>
<td>5.1 Pharmacodynamic properties</td>
<td>Porcine-derived pancreatic enzymes (lipases, proteases, and amylases).</td>
<td></td>
</tr>
<tr>
<td>Pancrex (19)</td>
<td>5.1 Pharmacodynamic properties</td>
<td>Porcine-derived pancreatic enzymes (lipases, proteases, and amylases).</td>
<td></td>
</tr>
<tr>
<td>Hypurin Porcine 30/70 mix cartridges (17)</td>
<td>Active ingredients</td>
<td>Insulin, porcine insulin, pork insulin.</td>
<td></td>
</tr>
<tr>
<td>Hyprin Bovine Isophane Cartridges (20)</td>
<td>Active ingredients</td>
<td>Beef insulin, bovine insulin, insulin.</td>
<td></td>
</tr>
<tr>
<td>InductOs (dibotermin alfa) (21)</td>
<td>6.1 List of excipients</td>
<td>Bovine Type I collagen.</td>
<td></td>
</tr>
<tr>
<td>NovoSeven (22)</td>
<td>4.4 Special warnings and precautions for use</td>
<td>May contain trace amounts of mouse IgG, bovine IgG and other residual culture proteins (hamster and bovine serum proteins).</td>
<td></td>
</tr>
<tr>
<td>Codeine Phosphate Syrup (23)</td>
<td>2. Qualitative and quantitative composition</td>
<td>Each 5ml of syrup contains 2.1 vol% of ethanol (alcohol).</td>
<td></td>
</tr>
<tr>
<td>DAKTARIN Oral Gel (24)</td>
<td>4.4 Special warnings and precautions for use</td>
<td>This medicinal product contains small amounts of ethanol (alcohol), less than 100mg per dose.</td>
<td></td>
</tr>
<tr>
<td>Diazepam 5mg/ml Solution for Injection (25)</td>
<td>2. Qualitative and quantitative</td>
<td>Ethanol 96% 100mg/ml.</td>
<td></td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Composition</th>
<th>2. Qualitative and quantitative composition</th>
<th>Approximate 10.5mg ethanol in 5mL of solution.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitriptyline Hydrochloride 25mg/5mL and 50mg/5mL Oral Solution (26)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-T trimoxazole for infusion 16mg/80mg per ml (27)</td>
<td>2. Qualitative and quantitative composition</td>
<td>13.2 vol% ethanol (alcohol) per 5 ml.</td>
</tr>
<tr>
<td>Priadel Liquid (28)</td>
<td>2. Qualitative and quantitative composition</td>
<td>211mg of ethanol 96% per 5mL solution.</td>
</tr>
</tbody>
</table>

Other pharmaceutical considerations include calcium stearate, cetyl alcohol, diglyceride, glycerine, glycerol monostearate, lactose, magnesium stearate and monoglycerides. These may be considered Mashbooh by some Islamic scholars (29). With respect to the gelatin in vaccinations, some Muslims may accept the ruling by PHE that porcine gelatin in vaccines has been certified as acceptable by some multi-faith groups (30).

The issues surrounding the Haram nature of medications is not just limited to conventional products but is also applicable to complementary medicines, e.g. chondroitin can be sourced from bovine origins (4).

**Impact of personal Islamic beliefs on medication choice**

Discussions around taking a potentially Haram medication should involve a scholar well versed in the patient's beliefs such as an Imam. The Imam may exempt these products from Shariah Law for medical necessity on the interpretation of the religious scriptures. The exemptions are not straightforward. For example, porcine-derived medicines may become temporarily exempt from the laws of diet during the time of illness.

Some Muslim patients, however, may have their own interpretations of Islam with regards to this topic, which further complicates the issue. Healthcare professionals may therefore be called upon to define and explain medical necessity and to explore the existence of suitable alternatives to Haram medications, feeds and nutritional supplements.

**Seeking advice from Islamic scholars and others**

For patients and healthcare professionals, advice should be sought from a recognised local Imam. The Muslim Council of Britain (MCB) can be contacted on 0845 26 26 786 or via their website at www.mcb.org.uk, for specific queries.

Advice from a pharmacist or a medicines information service is another option as they can find out if a product available in the UK is suitable for Muslim patients. They might also be able to suggest suitable alternatives if they exist.

**Useful websites:**

There are also some useful websites which may have product information, advice, or details on how to access advice on Halal medicines. Please note that this list of websites is not exhaustive and their content may not be applicable to UK practice. UKMi can take no responsibility for the accuracy or quality of the suggested websites:

- [http://halalfoodauthority.com/](http://halalfoodauthority.com/)
- [www.foodguide.org.uk](http://www.foodguide.org.uk)
- [http://www.muslimconsumergroup.com/medicine.html](http://www.muslimconsumergroup.com/medicine.html)
- [https://halaltreatments.com/](https://halaltreatments.com/)

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Summary

- In Islam, Halal means ‘permissible’ whilst ‘Haram’ means ‘prohibited’.
- Islamic law (or Shariah Law) gives Muslims the freedom to eat and drink anything as long as it is not Haram.
- Mashbooh means that the origins of the constituent are in doubt and cannot be classified as Haram or Halal.
- Tayyib (with respect to pharmaceutical products) means that the product is of good quality and produced under standardised processes. In terms of UK licensing, this would equate to a product and manufacturing license.
- There is no exhaustive or comprehensive list of medicines available which are Halal certified.
- Any medicines which contain porcine or non-Halal excipients or ingredients may pose a problem to Muslim patients; although pork gelatin used in medicines can be contentious.
- Something considered Halal could be rendered Haram by the preparation process.
- Obtaining written correspondence detailing ingredients and sources from manufacturers of pharmaceutical products is considered the main point of contact.
- Healthcare professionals can provide information about products and their excipients based on the information available to them but individuals remain responsible for deciding whether their treatment is compliant with their own religious belief system.
- For specific queries on the suitability of a medicine for individual patients, advice could be sought from a recognised local Imam.

Limitations

Religions are followed and interpreted differently by individuals and so some practices may be acceptable to some patients and others may not be acceptable. This needs to be kept in mind as this document is a reference to create awareness of some of the potential medicine-related problems which could arise in this patient population. This medicines Q&A excludes other religions.

References


Quality Assurance

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26th January 2018

Search strategy

a. Embase via NICE Evidence (accessed 04/12/2017):

1. EMBASE; exp MUSLIM/; 1003 results.
2. EMBASE; ISLAM/; 903 results.
3. EMBASE; exp DRUG THERAPY/; 2320454 results.
4. EMBASE; halal.af; 543 results.
5. EMBASE; haram.af; 343 results.
6. EMBASE; Mushbooh.af; 1 result.
7. EMBASE; tayyib.af; 68 results.
8. EMBASE; 4 OR 5 OR 6 OR 7; 944 results.
9. EMBASE; 1 OR 2; 1813 results.
10. EMBASE; 3 AND 8; 55 results. [DT 2016-2017] = 16
11. EMBASE; 3 AND 9; 96 results. [DT 2016-2017] = 52

b. Medline via NICE Evidence (accessed 04/12/2017; limits and fields feature not functioning correctly):

1. Medline; ISLAM/; 4766 results.
2. Medline; exp DRUG THERAPY/; 1268591 results.
3. Medline; 1 AND 2; 78 results.
4. Medline; exp PHARMACEUTICAL VEHICLES/; 30132 results.
5. Medline; 1 AND 4; 1 result.
6. Medline; RELIGION AND MEDICINE/; 10865 results.
7. Medline; 1 AND 6; 698 results.
8. Medline; haram.ti.ab; 38 results.
9. Medline; halal.ti.ab; 166 results.
10. Medline; Mushbooh.ti.ab; 1 result.
11. Medline; tayyib.ti.ab; 0 results.
12. Medline; 8 OR 9 OR 10 OR 11; 199 results.
13. Medline; 6 AND 12; 5 results.
14. Medline; 4 AND 12; 0 results.

c. Medline via PubMed (accessed 04/12/2017) from Jan 2016:
   "Islam"[Mesh] AND "Religion and Medicine"[Mesh] AND ("2013/01/01"[PDAT]:
   "2015/12/31"[PDAT]) AND "humans"[MeSH Terms]) = 146 results

d. MiDatabank Viewer (accessed 30/11/2017): free text search [halal]
   All centres: 1 result
   Own centre: 10 results

e. NICE Evidence (accessed 30/11/2017): free text [halal medication]; free text [halal]; free text
   [Muslim and medications]

f. Medicines Complete (AHFS Drug Information, BNF for Children, British National Formulary, Drug
   Administration via Enteral Feeding Tubes, Drugs in Pregnancy and Lactation, Handbook on
   Injectable Drugs, Herbal Medicines, Martindale: The Complete Drug Reference, Stockley’s Drug
   Interactions, accessed 30/11/2017): free text [halal]

g. Micromedex DrugDex (accessed 30/11/2017): free text [halal] [Moslem] [Muslim] [haram] [Islam]

h. UpToDate (accessed 30/11/2017): free text [halal] [Moslem] [Muslim] [haram] [Islam]

i. Electronic Medicines Compendium (accessed 30/11/2017): free text [porcine] [pork] [bovine] [beef]
   [alcohol] [ethanol]

j. Google (accessed 04/12/2017): free text [halal medication]