

Endorsements

This booklet has been greatly enhanced by contributions and advice from the Muslim Council of Britain, and in particular Professor Aziz Sheikh, Chairman, Research and Documentation Committee, Muslim Council of Britain.

Rabbi Abroham Adler, a rabbinical authority on pharmaceuticals, and Dr Joseph Spitzer a GP and authority on Judaism and medicine have advised on the issues for Jewish patients.

This booklet is supported by the Task Force on Medicines Partnership, a Department of Health Programme aimed at enabling patients to get more out of medicines, and by the Ask about Medicines consortium. Accordingly, they have given the booklet their endorsement.

All of the advisors believe that this booklet provides a useful introduction for patients and carers to the issues surrounding diversity, and in particular patient choice in medicine taking in a multicultural society.



INFORMED CHOICE IN MEDICINE TAKING
Drugs Derived from Pigs and their Clinical Alternatives
An Introductory Guide for Patients and Carers



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INFORMED CHOICE IN MEDICINE TAKING:

*Drugs of Porcine Origin and their Clinical Alternatives:
An Introductory Guide for Patients and Carers*

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* Porcine origin - the technical term for products derived from pigs is 'of porcine origin' and this term is used throughout the booklet

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FOREWORD BY THE TASK FORCE ON MEDICINES PARTNERSHIP

Expansion of patient choice is a key objective of the NHS as it enters the twenty-first century. The government's recent report, 'Building on the best: Choice, Responsiveness and Equity in the NHS, 2003', on its wide ranging consultation on choice, responsiveness and equity in the NHS makes clear that in future patients will be offered choice not just about when and where they receive treatment, but also about what kind of treatment they receive, and how this is delivered.

Extending choice is not just about responding to the needs and preferences of a multicultural population. It is increasingly recognised that involving patients as full partners in decisions about their treatment actually leads to better health outcomes. Nowhere is this more true than in prescribing and medicine taking. Research shows that some 50% of medicines prescribed for long term conditions are not taken as prescribed, resulting in a huge burden of avoidable ill-health and premature mortality for patients, as well as significant cost to the NHS through wasted medicines, drug resistance and, more importantly, in dealing with preventable illness and complications.

You will have your own views and beliefs about medicines, how they should be used and how medicine taking fits in with your daily life.

Numerous studies have shown that patients' attitudes to risk and the extent to which they find side effects tolerable can differ markedly from the assumptions made by health professionals, and that patients' beliefs and views about medicines are a key influence on whether and how they take them. Patients are much more likely to follow treatment if they have been active partners in prescribing decisions and their views and preferences have been recognised and taken into account. This in turn is only possible if both you and the health professionals involved in your care, have sufficient information about the treatment options available.

We welcome this guidance booklet on drugs of porcine origin as one of a number of new sources of information which patients can use to identify the range of treatment options available and share information made about treatment plans. We hope that it will become a useful resource to assist informed debate and discussion about this topic and thus build choice into this aspect of care.

Geraldine Mynors
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May 2004

FOREWORD

THE RELIGIOUS AND CULTURAL ASPECTS OF PORCINE DERIVED PRODUCTS

Dr Hooman Ghalamkari, BPharm, PhD, MRPharmS, Community Pharmacist, Member of Task Force on Medicines Partnership and Director of MORPh Consultancy

- You have a right to demand the highest standard of healthcare.
- The prescribing of porcine derived medicines needs to be sensitive to the beliefs of the different faiths.
- Discussion about how to take your medicine in the correct way should include consideration of your beliefs and lifestyles. You should make your doctor, nurse or pharmacist aware of your religious beliefs.
- There may be a balance between some aspects of your faith and the need to take appropriate medication for your health. You should be made aware of choices between medicines where they exist.

Leading Religions in the UK

Every patient has the right to demand the highest standard of healthcare.² Living in a multi-cultural, multi-faith society, the highest standard of care requires that healthcare professionals recognise and understand the different cultural and spiritual needs of patients. Your personal beliefs should be taken into account by the doctors and nurses caring for you.

Individuality of Religious Practice

As you are probably aware, within different faiths there are many schools of thought. In addition, different cultures have different customs that will be intertwined with religious law. How people adhere to religious teaching is a personal issue and may depend on many things. For example, you and your family may place greater importance on religious practices at times of ill health.

A person's beliefs can affect many issues in their life such as diet, hygiene, modesty, dress, names, family planning, child birth, blood transfusions, organ transplantation, dying, death and post-mortems.

Requirements of different faiths need to be considered

The dietary requirements of different faiths should be taken into account when prescribing and administering porcine derived medicines. Judaism³ and Islam⁴ strictly forbid pork within the diet. These restrictions are based on the religious scriptures which record that the feeding and behavioural habits of pigs is damaging to members of the faith. In faiths such as Buddhism, Hinduism and Sikhism where vegetarianism is seen as a sign of spirituality, pork is not eaten.

Christians in Afro-Caribbean communities often choose not to eat pork, although there is no explicit restriction on pork consumption.⁵ Some patients, particularly those who follow vegan or vegetarian diets, may object to the use of animals to meet the needs of humans. Although porcine derived medicines could potentially be an issue for patients of a number of faiths or dietary preference, it is more likely to be an issue for people of Judaism and Islamic faith.⁶

You can ask your doctor, nurse or pharmacist about the origins of your proposed medication to help inform your understanding, relevant to your religious beliefs.

Discussion: The origins of porcine derived medicines

The forward to this booklet highlights how important it is to take medicines in the correct way to improve their effectiveness. Patients are more likely to take their medicine correctly when there has been proper discussion between the doctor and patient about the purpose of the medicine, how and when to take it, the likely benefits and risks of taking it, or not. This discussion should also include patient's beliefs, values, attitudes, and lifestyle which often are shaped by religious teachings.⁷ If you have not had this kind of discussion with your doctor, you should not be afraid to ask for it.

One study that directly investigated the influence of patients' faith on taking medicines that were porcine derived provides invaluable insight.⁸

Patients' awareness of the origins of medicines

Only 50% of patients believed that their doctor was aware of their religious needs in respect of medicine taking.

- This study of 50 Muslim patients and 18 general practitioners (GPs) found that only 26% of patients would take a medicine if they were unsure whether it was halal or not.
- 42% of patients stated that they would not take any medicines if they were not sure the medicines were halal, with 38% stating that they would stop taking a medicine if they found out it was haram.

Patients' awareness of the severity of illness

The severity of the illness is an important consideration in taking medicines that are haram.

- In the study 8% of patients and 22% of GPs believed that it was acceptable for Muslims to take a haram medication for a minor illness or disease.
- For treatment of a major illness or disease, however, 36% of patients and 44% of GPs believed that it was acceptable to take a haram medicine.

Consultations with experts in Jewish Law regarding medicine and ethics, suggests that there is considerable misunderstanding of medical treatments that are permitted under Jewish Law (halachah). Appendix 1, developed through advice with a leading rabbinical authority (Rabbi Abraham Adler) and the publication "Caring for Jewish Patients"⁹ provides clarification on many of these issues.

Which medicines present problems?

For some faiths medicines derived from sources that are forbidden could present dilemmas for both patients, carers and health care professionals. The issue is not straightforward, however, with religious leaders exercising judgement and exempting such medicines when there is no alternative and where there is a medical need.^{9,10,11}

For example in Islam and Judaism porcine derived medicines may become temporarily exempt from the laws of diet during the time of illness. The process of deciding what is and what isn't acceptable generally requires discussion by informed religious leaders who interpret the religious scriptures and determine the exemption.^{9,11}

In Judaism, porcine derived medication is only an issue for medicines taken by mouth.

Appendix 1 contains details of other considerations in respect of medicines and medicine taking by members of the Jewish and Orthodox Jewish community.

Given the complexity of such situations, you should discuss with your doctor, nurse or pharmacist how important it is that you take the medicine, your religious beliefs and possible alternatives.

Questions for consideration

If your religion is associated with dietary restrictions there are a number of issues you might wish to consider;

- Does your treatment consist of porcine derived medicines and if so will you agree to use that medicine?
- Would you be placed in a spiritually vulnerable position by taking porcine derived medicines without due consideration?
- Are there alternatives to porcine derived medicines? If there are not, is this because they are not produced, because they are too expensive, or because there is not enough evidence about their use?
- Have you made your views known to your doctor or nurse and had a discussion on issues relating to porcine derived medicines?

Steps to help you resolve your health care and religion concerns

- Take the opportunity to discuss your beliefs and your medicines with your doctor, nurse, or pharmacist. Your healthcare team may not have realised how important they are to you.
- Ask them to consider alternatives: there are reference sources available if they need more detailed knowledge.^{9,11}
- If you have problems making your doctor understand, it might help to have a family member present during the discussions to support you.

Make links with local religious teachers and ask them to explain to your doctor.^{9,11} The Muslim Council of Britain, for example, runs a community information service "MCB Direct", (www.mcb.org.uk/mcdirect), which can handle such requests. The Kshrus and Medicines Information Service, Gateshead NE8 1TP, can also help Jewish patients and carers with such advice.

In summary, you need to let your doctor, nurse or pharmacist know about your religious faith, so they can find out the sources of medicines, their excipients, their alternatives and give you the opportunity to discuss your concerns and provide you with genuine patient choice.

DRUG DEVELOPMENT AND THE MOVE FROM ANIMAL SOURCE TO SYNTHETIC AGENTS

Sarah Powell, BSc, MSc, MRPPharmS, Pharmaceutical Adviser,
Southampton City PCT

- Some problems encountered with drugs made from animal and plant material have been overcome by using synthetic products.
- The animal origin of drug treatments should be discussed with patients and carers who may have religious or cultural issues with drugs derived from an animal source.

Problems with biological sourcing

In the past, using animal and plant derived compounds (referred to as biological source) to make drugs created two major challenges:

- ensuring there were enough supplies of the biological source to produce as much medicine as was needed
- risk of possible infection from the source.

The latter problem is particularly difficult for patients who have taken a medicine to make a medical condition better, only to find another problem has been caused by taking the drug.

Transition from biological sources to synthetic agents

Drug development has evolved significantly over recent years.

Historically, most medicines are derived from animal and plant compounds. More recently, advances in synthetic chemistry and recombinant technology have provided new ways of developing and manufacturing drugs.¹²

The Regulatory Perspective and The Precautionary Principle

Public health and blood donation policies have been adopted to try to eliminate all possibility of infectious disease being transmitted unintentionally by adopting what is known as "The Precautionary Principle".

This principle, developed in the early 1990s as an attempt to prevent harm to the environment and human health requires that caution is used when there is a possibility of harm associated with an action, even if it has not been proved.

*"When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."*¹³

The precautionary principle is applied by the organisations responsible for the regulation of medicines in general.

Developments in Drug Manufacture: some examples of how they have become manufactured synthetically

Insulins for the treatment of diabetes:

For the first 50 years following its discovery, insulin was – taken from the pancreas of cows (bovine) and pigs (porcine).

Although bovine and porcine insulin are similar to human insulin, there are some slight differences. As a result, the immune system of some patients produces antibodies against insulin, reducing its effectiveness and resulting in inflammatory reactions at injection sites.

The long term complications arising from the regular injection of an animal-derived insulin led to the development of synthetic insulin in the early 1980s.

Over recent years there has been a move from biologically sourced, using animal and plant materials to make drugs, to using synthetic sources for drugs which are more consistently absorbed^{14, 15}

Today most individuals are treated with recombinant human insulin or insulin analogues (93% of prescriptions), animal insulins account for only 7%.¹⁶

Heparin is prepared from pig skin and young calf blood plasma.

Heparin is one of the most commonly prescribed drugs that is derived from pigs. The pigs are sourced from China, and around 30 – 150 million pigs a year are used in the production of heparin.

Used commercially since the late 1930s, heparins are prepared by chemical removal from animals (i.e. porcine intestine, bovine lung).

From a pharmaceutical perspective, consistent activity and purity of the drug is an important part of the manufacturing process and is much easier to achieve with synthetic material.¹⁷

Today there is a new class of drugs available to reduce clotting and thromboembolism -the Factor Xa Inhibitors-which are currently licensed to prevent the risk of clots in patients undergoing orthopaedic surgery.

Current Practice

'Synthetic products have largely replaced some animal and human derived products.'

The evolution to the mostly synthetic products used today offers advantages over animal derived medicines:

- Reduces the risk of biological infection
- Improves the consistency of the products and makes supplies more reliable
- Produces alternatives for those patients who have a religious or cultural objection to using drugs of animal origin

Where alternatives exist, patients can be offered a synthetic product to reflect their religious or other personal preference.

How can you establish if a drug is of animal origin?

- Ask your doctor or nurse to phone the manufacturer and ask their medicines information department for specific detail of drug origin
- The name may be a give away although it is not always obvious from the name alone
- Patient Information Leaflet – although this does not always detail all the components
- Ask your pharmacist

Doctors, nurses and pharmacists keep some options open.

Doctors, nurses and pharmacists should consider the nature and sourcing of the drugs they prescribe, particularly for patients who may have religious or lifestyle beliefs. They should include the origin of drug therapies in guidelines and formularies, citing synthetic alternatives where they exist.

As a patient, if this is important to you, you should be able to ask about alternative treatments. If none are available you will need to discuss with your doctor, your family and your religious leaders, the balance between the benefits from taking the medicine in the light of your religious beliefs.

Where there is a choice between an animal-derived drug and a synthetically produced one, you should be able to discuss with your doctor which treatment is right for you, or your family member.

'Nothing can be better - Chances, though, to discuss with your doctor.'

The NHS aims to improve choice, to respond to individual patients' needs and to ensure that patients have equal access to medicines. Patients want the opportunity to share in decisions and this requires accurate, balanced information to be made available.¹

This booklet aims to clarify where there are clinical alternatives and to provide appropriate information to enable patients to have choice in their medicine taking.

DRUGS OF PORCINE ORIGIN AND THEIR CLINICAL ALTERNATIVES

Sarah Beaumont, BPharm, MRPharmS, Field Support Manager,
HealthGain Solutions

This section provides a useful and instant guide for patients who want to find out more about the porcine content of a drug where it may be of concern to them.

It identifies the porcine component of the product and any clinical alternative that exists. The table contains a wider list of drugs that contain animal derivatives.

Table 2: Drugs of Porcine Origin

DRUG (BRAND NAME)	WHEN IS IT USED?	PORCINE COMPONENT WITHIN THE DRUG, OR ITS CARRIER	DRUG FORM
Curosurf® Poractant Alfa Chiesi Pharmaceuticals ¹⁸	Treatment of Respiratory Distress Syndrome in newborn babies or hyaline membrane in neonates > 700g	Porcine lung phospholipid fraction	White-yellow suspension
Hyate-C® Factor VIII inhibitor bypassing fraction Ispen Ltd ¹⁸	Treatment and prophylaxis of bleeding (specifically intended for patients with inhibitory anti bodies to human factor VIII C)	Porcine factor VIII C	White powder to be reconstituted with water for IV injection.
M-M-R II® MMR Vaccine Aventis Pasteur MSD ^{18, 19}	Combined immunisation against measles mumps and rubella	Gelatine (porcine) hydrolysed	Powder for injection
Zibor® Bemiparin Sodium (anti-factor Xa) Amdipharm ¹⁸	Prevention of thromboembolic disease and (DVT) treatment of Deep Vein Thrombosis	Bemiparin sodium from porcine derived heparin sodium	Solution for injection
Fragmin® Dalteparin Sodium (anti-factor Xa) Pharmacia ^{18, 20}	Includes DVT, PE, unstable coronary thrombophrophylaxis. Haemodialysis/ Haemofiltration system clot prevention.	Dalteparin sodium from porcine derived heparin sodium	Solution for injection
Innohep® Tinzaparin Sodium Leo ^{18, 21}	Dose dependent but includes DVT, Pulmonary Embolism (PE), unstable coronary disease, and thrombophrophylaxis. Haemodialysis/ Haemofiltration system clot prevention.	Tinzaparin sodium from porcine derived heparin sodium	Solution for injection
Clexane® Enoxaparin Rhône-Poulenc Rorer ¹⁸	Dose dependent but includes DVT, PE, unstable coronary disease, and thrombophrophylaxis. Haemodialysis/ Haemo filtration system clot prevention.	Enoxaparin from porcine derived heparin sodium	Solution for injection

Clivarine® Reviparin Sodium ICN ¹⁸	Dose dependent but includes DVT, PE, unstable coronary disease, and thromboprophylaxis. Haemodialysis/ Haemofiltration system dot prevention.	Reviparin from porcine derived heparin sodium	Solution for injection
Alphaparin® Certoparin Sodium Grifols ¹⁸	Dose dependent but includes DVT, PE, unstable coronary disease, and thromboprophylaxis. Haemodialysis/ Haemofiltration system dot prevention.	Certoparin from porcine derived heparin sodium	Solution for injection
Calciparine® Heparin Calcium Sanofi-Synthelabo ^{18,22}	Dose dependent but includes DVT, PE, unstable coronary disease, and thromboprophylaxis. Haemodialysis/ Haemofiltration system dot prevention.	Heparin calcium from the mucous membrane of the hogs stomach	Solution for injection
Monoparin® Multiheparin® Heparin Sodium CP Pharmaceuticals ¹⁸	Dose dependent but includes DVT, PE, unstable coronary disease, and thromboprophylaxis. Haemodialysis/ Haemofiltration system dot prevention.	Porcine derived heparin sodium	Solution for injection
Monoparin Calcium® Heparin Calcium CP Pharmaceuticals ¹⁸	Dose dependent but includes DVT, PE, unstable coronary disease, and thromboprophylaxis. Haemodialysis/ Haemofiltration system dot prevention.	Porcine derived heparin	Solution for injection
Minihep® Heparin Sodium Leo Pharmaceuticals ^{18,21}	Dose dependent but includes DVT, PE, unstable coronary disease, and thromboprophylaxis. Haemodialysis/ Haemofiltration system dot prevention.	Porcine derived heparin sodium	Solution for injection
Pancrease® Pancreatin Janssen-Cilag ¹⁸	Pancreatic enzyme deficiency	Porcine pancreatin	Capsules containing enteric coated (e/c) beads of pancrelipase
Nutrizym® Pancreatin Merck ¹⁸	Symptomatic relief of exocrine insufficiency	Porcine pancreatin	Capsules containing e/c minitabs of pancreatin

Creon® Pancreatin Solvay ¹⁸	Treatment of pancreatic exocrine insufficiency	Porcine pancreatin	Capsules containing e/c pellets of pancreatin
Pancrex® Pancrex V® Pancreatin Paines & Byrne ¹⁸	Treatment of pancreatic exocrine insufficiency	Porcine pancreatin	Granules (Pancrex V capsules)
Pork Actrapid® Pork Insulatard® Pork Mixtard30® Soluble insulin Novonordisk ^{18,23}	Diabetes Mellitus	Porcine insulin - highly purified	Solution or suspension for injection
Hypurin® Porcine Isophane Porcine 30/70 mix Porcine Neutral Isophane Insulin CP Pharmaceuticals ¹⁸	Insulin Dependent Diabetes Mellitus (IDDM)	Porcine insulin - highly purified	White suspension for injection

Table 3: Drugs of Porcine origin and their clinical alternatives

DRUG TRADE-BRAND AND GENERIC NAME MANUFACTURER	LEVEL OF NHS USAGE (VALUES: NUMBER OF PATIENTS IN THE UK CURRENTLY USING THIS PRODUCT)	CLINICAL ALTERNATIVE: BRAND/GENERIC NAME AND MANUFACTURER	DRUG FORM OR ALTERNATIVE
	<than 1,000 Low <than 10,000, Medium <than 10,000, High		
Curosurf® Poractant Alfa Chiesi Pharmaceuticals	High	Exosurf Neonatal® Colfosceril Palmitate GSK ²⁴	Suspension for administration via endotracheal tube
Hyate-C® Factor VIII inhibitor bypassing fraction Ispen Ltd	No data	No data	No data
MMR-II® MMR Vaccine Aventis Pasteur MSD	High	Priorix® MMR Vaccine GSK ²⁴	Powder for injection
Zibor® Beniparin Sodium (anti-factor Xa) Amdipharm	High	Arixtra® ²² For major orthopaedic surgery Fondaparinux	Solution for injection
Fragmin® Dalteparin Sodium (anti-factor Xa) Pharmacia	High		
Innohep® Tinzaparin Sodium Leo	High		
Clexane® Enoxaparin Rhône-Poulenc Rorer	High		
Clivarine® Reviparin Sodium ICN	Low		
Alphaparin® Certoparin Sodium Grifols	High		
Calciparine® Heparin Calcium Sanofi-Synthelabo	High		

Monoparin® Multiparin® Heparin Sodium CP Pharmaceuticals	High	All un-fractionated or standard heparin is porcine derived	N/A
Monoparin Calcium® Heparin Calcium CP Pharmaceuticals	High	All un-fractionated or standard heparin is porcine derived	N/A
Minihep® Heparin Sodium Leo Pharmaceuticals	High		
Pancrease® Pancreatin Janssen-Cilag	Medium	All pancreatin supplements are of porcine origin	N/A
Nutrizym® Pancreatin Merck	Low		
Creon® Pancreatin Solvay	High		
Pancrex® Pancrex V® Pancreatin Paines & Byrne	Low		
Pork Actrapid® Pork Insulatard® Pork Mixtard30® Soluble insulin Novonordisk	Medium	Human Sequence insulins	Solutions for injection
Hyurin® Porcine Isophane Porcine 30/70 mix Porcine Neutral Isophane Insulin CP Pharmaceuticals	Low-Medium	Human Sequence insulins	Solutions for injection

This section aims to clarify where there are clinical alternatives to drugs of porcine origin and to provide appropriate information to enable the healthcare professional to offer patients a choice in their medicine taking.

INVOLVING PATIENTS IN DECISIONS ABOUT PORCINE-DERIVED MEDICATION

Professor Paula McGee, RN, RNT, PhD, MA, BA, Cert Ed, School of Health and Policy Studies, University of Central England

- Patients and carers want to understand about their medication so they can be involved in decisions about their care.
- Getting information about where your proposed medication has come from is the first step in ensuring that your beliefs are being respected.
- It is important to address this issue before the prescription is written and as far in advance as possible of the time at which it will be taken, so that alternative medicines can be made available to you if appropriate and if manufactured.
- The most appropriate time to raise the matter is during the initial assessment of your condition with your doctor, nurse or pharmacist.

Why do I need to talk to my doctor, nurse or pharmacist about porcine-derived medicine?

As a patient, you may want to be involved in decisions about your treatment so that you understand

- The reasons why a particular drug has been prescribed;
- How it should be taken;
- The expected benefits;
- The potential unwanted effects that may occur.

This understanding is a vital part of obtaining your agreement to treatment. It also helps to ensure that you take your medication as intended and gain the maximum benefit from the treatment.

For many people the prospect of being asked to take porcine-derived based medication by mouth, injection or any other route is not acceptable and the reasons for this are discussed elsewhere in the booklet.

The World Medical Association supports the view that patients have the right to self-determination and that they are free to make their own decisions (WMA 1995 section 3).²⁰ You may wish to exercise this right in relation to drugs of porcine origin.

How do I know which drugs are porcine-derived?

Information about the origins and contents of all porcine-derived products is available in the previous section. These may include anticoagulants, insulin and preparations with gelatine coatings.

How does my doctor, nurse or pharmacist know if a drug is porcine-derived?

You should feel free to raise the matter of porcine-derived medication at any time, but ideally before the prescription for a treatment is written. It may be sensible to tell your doctor about your views as early as possible so that he or she is aware when prescribing for you. Remember that your doctor, nurse or pharmacist can only be aware of your beliefs if you tell them. You have a right to appropriate information in order to make decisions (WMA 1995 section 3).²⁰

You may find it easiest to raise the matter during the normal questioning that goes on. You can tell the doctor, nurse or pharmacist about your preferences and let them know

"Are there any medicines that you

- **what your religious or lifestyle beliefs mean for any treatments**
- **if there are any medicines you prefer not to take**
- **if you are unhappy to consider any treatments that comes from animals**

You could say, for example

"As a Muslim, I would like to be told if any of my medicines come from pigs"

If you are responsible for administering medication, the most appropriate time to raise the matter is during your initial assessment of the patient. Normal questioning about the patient's daily life will include that person's religion, current medication and preferences about food that can be extended. For example:

"As a Muslim, are you aware that some medicines come from pigs?"

"I do not want my medicines to come from animals"

Ask if there are ways to ensure that everyone involved in your care knows about your preferences, such as the use of coloured stickers on your records, or at your bedside if you are in hospital.

In some instances

- There may be no synthetic version of the drug that has been identified as necessary to treat your condition
- The synthetic alternative is not suitable you

In these circumstances it is important that you understand the situation as fully as possible. Ask questions, or even ask for part of an explanation to be repeated back to you, so that you can check your understanding. You may wish to explain back to the doctor, nurse or pharmacist what has been discussed to check you have understood fully.

Such approaches help to improve your understanding and to improve patient choice by helping you discuss issues with your doctor or nurse.

In some circumstances this may mean that you decide not to have the treatment. In that situation you need to understand the consequences of your choice. The doctor, nurse or pharmacist can acknowledge that you are free to decide not to proceed with treatment 'for a good reason, a bad reason or for no reason', even if they may disagree with your decision. Whatever the outcome, the information you have been given and a summary of the discussion should be recorded in your medical records together with the decision that was made.

What about emergency cases?

Even in an emergency situation, patients and carers have a right to be informed about the treatment options available and to make an informed choice providing that they have the capacity to make decisions.²⁷

This may mean that some individuals ultimately refuse medication that is derived from pork. This information should be recorded and a summary of the discussion made in that person's records, together with the decision that was made so that everyone involved in that person's treatment and care is aware of the reasons for this.

There may be a suitable synthetic alternative to some porcine derived medicines. This can be offered to you or your family member together with explanations about the medicines, actions and potential side effects. The decision that you or your family member makes should be recorded in your medical notes by your doctor.

SIGNPOSTS TO PATIENT CHOICE IN MEDICINE TAKING INFORMATION

This booklet is intended to help patients and their carers with the background to religious and cultural issues associated with drugs of porcine origin and the need for informed patient choice in a multicultural society.

However, it is by no means exhaustive and to help the reader who wishes to learn more we have included this section to signpost you to more detailed information.

- 1 <http://www.medicines-partnership.org>: A Department of Health funded organisation aimed at enabling patients to get more out of medicines. The web-site explains more about the issues of concordance and shares examples of best practice in improving concordance in the NHS
- 2 <http://www.doh.gov.uk/extendingchoice/choice/pdf>: provides background to patient choice as a major NHS strategy, including the 2003 consultation exercise
- 3 <http://www.kingsfund.org.uk/pdf/PatChoice.pdf>: References on publications relating to patient choice held by The Kings Fund Library and Information Service
- 4 <http://www.mcib.org.uk>: website of Muslim Council of Britain: The Muslim Council of Britain (MCB) represents the interests of UK Muslims. It is an umbrella organisation with 400 institutions affiliated to it.
- 5 <http://www.bod.org.uk>: Website of Board of Deputies of British Jews: the elected, national representative body of the British Jewish community
- 6 <http://www.kcl.ac.uk/depsta/comm>: Centre for Caribbean Medicine: is a partnership between King's College London and the University of the West Indies and works to promote research and teaching in order to improve the health and welfare of the people in the West Indies and those of West Indian ancestry living in London and elsewhere in the UK.
- 7 <http://www.vegsoc.com>: Vegetarian Society: Offer advice on nutritional issues and provide free information to individuals companies and organisations
- 8 <http://www.fons.org/networks/tenha>: Trans-cultural Nursing and Healthcare Association (TCHNA): founded in 1998 to promote knowledge and understanding of transcultural issues in nursing and healthcare.
- 9 Gattard A, Sheikh A. Caring for Muslim Patients. Oxford: Radcliffe Medical Press Ltd; 2000: Provides expert information on the cultural context within which clinical encounters with Muslim patients should be placed.
- 10 Spitzer J Caring for Jewish Patients. Oxford: Radcliffe Medical Press Ltd; 2003: Provides expert information for healthcare professionals to be aware of when caring for Jewish patients.
- 11 Union of Orthodox Hebrew Congregation published annually 'Hakohel Koshrus' which is a general guide to Kosher products, including medicines. The 2004 edition is currently in print.

APPENDIX ONE: CONSIDERATIONS WHEN CARING FOR THE JEWISH PATIENT

Rabbi Abraham Adler is Consultant Pharmacist for the London Beth Din and Union of Orthodox Hebrew Congregations. The scope of this booklet was defined to focus on drugs of porcine origin and their clinical alternatives, however, it was felt that Rabbi Adler's expertise and suggestions would provide further insight into Judaism and medical treatment.

Dr Joseph Spitzer a General Practitioner and author of "Caring for Jewish Patients"²⁰ also contributed to this booklet to enable this introductory guide to dispel some of the misunderstandings about Judaism and medical treatment.

All Jewish medical issues are based on the principles of Jewish Law (Halachoh). Jewish Law permits the consumption of porcine and other non-Kosher materials in a non-edible manner in the case of illness, even if that illness is not life threatening. So for example, there are no restrictions or prohibitions on the injection, or other parenteral methods, of administration of non-kosher products such as insulin of porcine or bovine origin²¹.

The "Shulchan Oruch, Yoreh Deah"²² (The Code of Jewish Law) contains the guidance on forbidden substances in non-edible state for medicinal purposes in Chapter 155, paragraph 3. As it is written in Hebrew, translations for the non-Jewish reader may be needed, contact the London Beth Din Kashrus Division referred to in "Signposts"

In medicines the issues for Jewish patients often reside in the carrier (excipient), rather than the active ingredients.

Examples of problem excipients are ²³:

- Gelatine: usually of animal origin, however where it is being consumed in a non-edible form, for example a totally tasteless capsule shell or a powdered form as a binder in tablets, it would be permitted if no alternative were easily available.
- Glycerol/Glycerine: historically this used to cause Jewish patients great concern, however almost all glycerol/glycerine used by the pharmaceutical industry is now of vegetable extraction. Glycerine in a liquid preparation would be forbidden as it helps to impart a good taste.
- Stearic acid/Stearates: these are now usually from vegetable sources. Under Jewish Law less than 1.5% would not create a problem. There would also not be an issue if the preparation is a non-edible tablet.
- Lactose: this is milk-derived sugar present in a wide range of tablets as a bulking agent and also used to make tablets that are chewable or suckable taste better. The issue for Jews with lactose would be with respect to dietary laws that preclude consumption of milk and meat together and requirements for the supervision of milk. Re-assurance should be given to Jewish patients where the product is inedible and alternatives sought with respect to edible products for example Lactulose.

Passover might present problems relating to medicines, because Jews are forbidden to eat any food containing flour that has risen. Therefore medicines that contain wheat starch will present issues prior to and during the week of Pesach (Passover)

Other areas where careful consideration should be given include

- Dietary supplements and meal replacements
- Products containing wine derivatives
- Gluten-free products
- Wheat derivatives relevant to the Passover festival

Table 2 does not include any of the numerous formulations containing glycerol, most pharmaceutical companies now use vegetarian glycerol. The Table is not exhaustive, but covers the more commonly available treatments. Neither does it include products formulated in gelatine capsules, as for medicinal purposes non-edible products formulated with gelatine are permitted. However, in the case of less essential products such as vitamins, Jewish patients may prefer alternatives formulated in vegcaps

Table 2: Products Containing Animal Derivatives as carriers ²⁹

PRODUCT: BRAND AND GENERIC NAME AND MANUFACTURER	DISEASE	CARRIER
Adcoyl in Orabase	Oral and perioral lesions	Gelatine
Askit powders	Pain relief	Lactose
Calsalethes (sugar coated)	Stimulant laxative for constipation	Lactose
Aloin	Indigestion	Lactose
De Witts antacid tabs	Fluoride mouthwash	Lactose
Endekey Fluotabs 6+	Pain and inflammation in rheumatic disease. Acute gout	Gelatine
Feldene melt	Acute diarrhoea	Gelatine
Piroxicam	Treatment of acute migraine attacks	Gelatine
Pfizer	Mouth ulcers	Gelatine
Imodium instants	Oral and perioral fungal infections	Gelatine
Loperamide	Indigestion	Gelatine
Johnson and Johnson MSD	Indigestion	Lactose
Maxalt melt		
Rizatriptan		
MSD		
Medijel pastilles		
Aminoacridine, lidocaine		
Dendron		
Nystan pastilles		
Nystatin		
Bristol Myers Squibb		
Remegel		
Calcium		
SSL International		
Topol		
Alginate acid, aluminium hydroxide, magnesium carbonate, sodium bicarbonate		
Ceva Healthcare		

Jewish patients should also avoid the treatments below, where possible as they contain active edible ingredients derived from animal sources, which Jews may wish to avoid:-

- Glucosamine with chondroitin preparations. The glucosamine is derived from the shell of shellfish and is acid treated therefore not edible. Chondroitin is derived from shark or bovine cartilage and may still be considered as somewhat edible.
- Saliva Orhana (AS Pharma) is an edible product containing animal derived active ingredient.

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- "And the swine, because it divideth the hoof, yet cheweth not the cud, it is unclean unto you. Ye shall not eat of their flesh, nor touch their dead carcass. "
- Deuteronomy chapter 14 verse 8:
- A similar prohibition is repeated in the Book of Isaiah chapter 65 verse 2-5.
- The Quran prohibits the consumption of pork in no less than 4 different sections. Pork consumption is referred to in 2:173, 5:3, 6:145 and 16:115.
- "Forbidden to you (for food) are: dead meat, blood, the flesh of swine, and that on which hath been invoked a name other than that of Allah", [Al Qur'an 5:3] The above verses of the Holy Quran are sufficient to satisfy a Muslim as to why pork is forbidden.
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