

million, is an appropriate size to support a single clinical network for cardiac interventions and possibly also for cardiac investigations, such as coronary angiography and electrophysiology. Common protocols for referring patients and assigning priorities are currently being developed, which should enhance and sustain equity of access and services.

Local diagnostic and treatment networks

In addition to the intervention network there will probably be a series of local diagnostic and treatment networks based primarily on health board areas. These local networks would comprise district general hospitals, local general practitioners and their local health care cooperatives, community and intermediate hospitals, local health promotion services, and the Scottish ambulance service. All the elements will need clear linkage to each other through regular meetings, information technology, and shared protocols. These local networks would be responsible for most cardiac services in Scotland from initial diagnosis and investigation through to chronic disease management. The networks will examine how the whole of the service is delivered, but they should concentrate initially on the aspects identified for improvement by the acute services review—secondary prevention, cardiac rehabilitation, and thrombolysis. Exploring these issues may be the process through which the responsibilities and relationships between the different elements of the local network are initially clarified. The role of nurse practitioners is

A managed clinical network for cardiac disease

High level intervention network
Local investigations and treatment networks
Effective implementation of guidelines
Clinical audit
Clear roles and responsibilities

What should managed clinical networks offer patients?

Better access to services
More effective services
Improved coordination between services
Consistent advice
Better care and prevention

expanding in areas such as secondary prevention, heart failure, and rehabilitation, and the advent of clinical networks could shape and guide this expansion. In the more rural parts of Scotland peripatetic services and the role of telemedicine will need to be considered.

Pilot process

A pilot process to implement and evaluate a local network for coronary heart disease in Dumfries and Galloway was submitted by one of us (CDB) and subsequently approved by the national acute services group. Work began in July 2000, and the network should start to function in April 2001. Five groups have been set up to plan and develop the network—on the project as a whole; service mapping and care pathways; finance and administration; public involvement; and evaluation and information technology. Developing the network is proving challenging. The potential rewards, in improved patient care for the total population, are considerable (see box).

This is an edited version of a presentation at the Millennium Festival of Medicine in London, 6-10 November 2000.

- 1 Scottish Office Department of Health. *Acute services review report 1998*. Edinburgh: Stationery Office, 1998.
- 2 NHSIS Management Executive. *Introduction of managed clinical networks in Scotland*. Edinburgh: NHSIS Management Executive, 1999 (MEL(1999)10).

Why a pomegranate?

Patricia Langley

The pomegranate was chosen as the logo for the Millennium Festival of Medicine from a shortlist that included DNA, the human body, and a heart beat. Not only has the pomegranate been revered through the ages for its medicinal properties but it also features in the heraldic crests of several medical institutions involved in the organisation of the festival.

Sacred meanings

Before its medicinal properties were described the pomegranate was held sacred by many of the world's major religions.

In the Greek myth of Persephone's abduction by Hades, lord of the underworld, the pomegranate represents life, regeneration, and marriage.¹ One day while out gathering flowers, Persephone noticed a narcissus of exquisite beauty. As she bent down to pick

Summary points

The pomegranate has been held sacred by many of the world's major religions

It has been revered through the ages for its medicinal properties

Preparations of different parts of the plant have been used to treat a variety of conditions

It features in the coat of arms of several medical associations



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BMJ 2000;321:1153-4

it, the earth opened and Hades seized her and dragged her down to his kingdom. By eating a few pomegranate

seeds, Persephone tied herself to Hades—the pomegranate being a symbol of the indissolubility of marriage. Inconsolable at the loss of her daughter, the corn goddess Demeter prevented the earth from bearing fruit unless she saw her daughter again. Zeus intervened and worked out a compromise: Persephone should live with Hades for one third of the year and the other two thirds with Demeter. Persephone's return from the underworld each year is marked by the arrival of Spring.

Zoroastrianism

The pomegranate probably originated in Iran and Afghanistan and was much used in Zoroastrian ritual and domestic observances.²⁻³ In Persian mythology Isfandiyar eats a pomegranate and becomes invincible.⁴ In "The Persian War" Herodotus mentions golden pomegranates adorning the spears of warriors in the Persian phalanx.⁵

Judaism

Pomegranate seeds are said to number 613—one for each of the Bible's 613 commandments.⁶ The pomegranate was revered for the beauty of its shrub, flowers, and fruit—symbolising sanctity, fertility, and abundance.⁷ The Song of Solomon compares the cheeks of a bride behind her veil to the two halves of a pomegranate.⁸ Depictions of the fruit have long featured in architecture and design. They decorated the pillars of King Solomon's temple and the robes and regalia of Jewish kings and priests.

Buddhism

Along with the citrus and the peach, the pomegranate is one of the three blessed fruits. In Buddhist art the fruit represents the essence of favourable influences.⁹ In Buddhist legend the demoness Hariti, who devoured children, was cured of her evil habit by the Buddha, who gave her a pomegranate to eat. She is depicted in Buddhist art holding a child. In Japan she is known as Kishimojin and is invoked by infertile women.¹⁰

In China the pomegranate is widely represented in ceramic art symbolising fertility, abundance, posterity, numerous and virtuous offspring, and a blessed future.¹¹ A picture of a ripe open pomegranate is a popular wedding present.

Christianity

A symbol of resurrection and life everlasting in Christian art, the pomegranate is often found in devotional statues and paintings of the Virgin and Child.

In medieval representations the pomegranate tree, a fertility symbol, is associated with the end of a unicorn hunt. The captured unicorn appears to be bleeding from wounds inflicted on him by the hunters.¹² The "wounds" are actually pomegranate seeds dripping their blood red juices on his milk white body. Wild and uncontrollable by nature, unicorns can be tamed only by virgins. Once tamed, the unicorn was held in an enclosed garden and chained to a pomegranate tree, symbolising the impending incarnation of Christ.¹³

Islam

The heavenly paradise of the Koran describes four gardens with shade, springs, and fruits—including the pomegranate. Legend holds that each pomegranate

contains one seed that has come down from paradise.⁵ Pomegranates have had a special role as a fertility symbol in weddings among the Bedouins of the Middle East.¹⁴ A fine specimen is secured and split open by the groom as he and his bride open the flap of their tent or enter the door of their house. Abundant seeds ensure that the couple who eat it will have many children.

Medicinal uses

Preparations of different parts of the plant—flower, fruit juice, rind, bark—have been used for a wide variety of conditions, although gastroenterological ailments predominate. Dioscorides describes some of them:

All sorts of pomegranates are of a pleasant taste and good for ye stomach . . . The juice of the kernells prest out, being sod and mixed with Hony, are good for the ulcers that are in ye mouth and in ye Genitals and in the seate, as also for the Pterygia in digitis and for the Nomae and ye excrescencies in ulcers, and for ye paines of ye eares, and for the griefs in ye nosthrills . . . The decoction of ye flowers is a collution of moist flagging gummies and of loose teeth . . . ye rinde having a binding faculty . . . but ye decoction of ye roots doth expell and kill the *Latas tineas ventris*.¹⁵

The use of pomegranate rind and root bark as a treatment for tapeworm infestation ("*Latas tineas ventris*") was recommended by several early Roman medical writers and is still listed as a treatment for tapeworms and diarrhoea in a current encyclopaedia of medicinal plants.¹⁶

Heraldic uses

The British Medical Association and three royal colleges feature the pomegranate in their coats of arms. The pomegranate was part of Catherine of Aragon's coat of arms and was accepted into English heraldry when she married King Henry VIII in 1509. The Royal College of Physicians of London had adopted it in their coat of arms by the middle of the sixteenth century.¹⁷ The heraldic meanings of the pomegranate hark back to the meanings of the pomegranate in the myth of Persephone—the persistence of life, fertility, and regeneration.

Competing interests: None declared.

- 1 *New Larousse encyclopedia of mythology*. London: Hamlyn, 1983.
- 2 *Trees at the Chelsea Physic Garden*. London: Chelsea Physic Garden Company, 1997:14.
- 3 Modi JJ. *The religious ceremonies and customs of the Parsees*. Bombay: British India Press, 1922.
- 4 Curtis VS. *Persian myths*. London: British Museum Press, 1996:54.
- 5 Herodotus. *The histories*. London: Penguin, 1996:389.
- 6 Good A, Nurock M. *The fruits of the Holy Land*. Jerusalem: Israel Universities Press, 1968.
- 7 Wigoder DE. *The Garden of Eden cookbook*. San Francisco: Harper & Row, 1988.
- 8 *Holy Bible*. Song of Solomon 4, 3.
- 9 Hall J. *Hall's illustrated dictionary of symbols in eastern and western art*. London: John Murray, 1995.
- 10 Munsterberg H. *Dictionary of Chinese and Japanese art*. New York: Hacker Art Books, 1981:241.
- 11 Cooper JC. *An illustrated encyclopaedia of traditional symbols*. London: Thames and Hudson, 1995:134.
- 12 Freeman MB. *The unicorn tapestries*. New York: Metropolitan Museum of Art, 1976.
- 13 Cherry J. *Mythical beasts*. London: British Museum Press, 1995:47-52.
- 14 Garrison W. *Strange facts about the Bible*. Nashville: Festival Books, 1980:184.
- 15 Gunter RT. *The Greek herbal of Dioscorides*. Oxford: Oxford University Press, 1934:80-1.
- 16 Chevallier A. *Encyclopedia of medicinal plants*. London: Dorling Kindersley, 1996:257.
- 17 Mason AS. The arms of the college. *J R Coll Physicians Lond* 1992;26: 231-2.



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Royal College of Midwives



Royal College of Obstetricians and Gynaecologists



Royal College of Physicians