

Pharmacy

The word pharmacy is derived from its root word pharma which was a term used since the 15th–17th centuries. However, the original Greek roots from pharmakos imply sorcery or even poison. In addition to pharma responsibilities, the pharma offered general medical advice and a range of services that are now performed solely by other specialist practitioners, such as surgery and midwifery. The pharma (as it was referred to) often operated through a retail shop which, in addition to ingredients for medicines, sold tobacco and patent medicines. Often the place that did this was called an apothecary and several languages have this as the dominant term, though their practices are more akin to a modern pharmacy, in English the term apothecary would today be seen as outdated or only appropriate if herbal remedies were on offer to a large extent. The pharmas also used many other herbs not listed. The Greek word Pharmakeia (Greek: φαρμακεία) derives from pharmakon (φάρμακον), meaning "drug", "medicine" (or "poison").[n 1]

Pharmacists are healthcare professionals with specialised education and training who perform various roles to ensure optimal health outcomes for their patients through the quality use of medicines. Pharmacists may also be small-business proprietors, owning the pharmacy in which they practice. Since pharmacists know about the mode of action of a particular drug, and its metabolism and physiological effects on the human body in great detail, they play an important role in optimisation of a drug treatment for an individual.

A Pharmacy Technician in the UK is considered a health care professional and often does not work under the direct supervision of a pharmacist (if employed in a hospital pharmacy) but instead is supervised and managed by other senior pharmacy technicians. In the UK the role of a PhT has grown and responsibility has been passed on to them to manage the pharmacy department and specialised areas in pharmacy practice allowing pharmacists the time to specialise in their expert field as medication consultants spending more time working with patients and in research. A pharmacy technician once qualified has to register as a professional on the General Pharmaceutical Council (GPhC) register. The GPhC is the governing body for pharmacy health care professionals and this is who regulates the practice of pharmacists and pharmacy technicians.

In Ancient Greece, Diocles of Carystus (4th century BC) was one of several men studying the medicinal properties of plants. He wrote several treatises on the topic. The Greek physician Pedanius Dioscorides is famous for writing a five volume book in his native Greek *Περὶ ὕλης ἱατρικῆς* in the 1st century AD. The Latin translation *De Materia Medica* (Concerning medical substances) was used as a basis for many medieval texts, and was built upon by many middle eastern scientists during the Islamic Golden Age. The title coined the term *materia medica*.

In Japan, at the end of the Asuka period (538–710) and the early Nara period (710–794), the men who fulfilled roles similar to those of modern pharmacists were highly respected. The place of pharmacists in society was expressly defined in the Taihō Code (701) and re-stated in the Yōrō Code (718). Ranked positions in the pre-Heian Imperial court were established; and this organizational structure remained largely intact until the Meiji Restoration (1868). In this highly stable hierarchy, the pharmacists—and even pharmacist assistants—were assigned status superior to all others in health-related fields such as physicians and acupuncturists. In the Imperial household, the pharmacist was even ranked above the two personal physicians of the Emperor.

The advances made in the Middle East in botany and chemistry led medicine in medieval Islam substantially to develop pharmacology. Muhammad ibn Zakarīya Rāzi (Rhazes) (865–915), for instance, acted to promote the medical uses of chemical compounds. Abu al-Qasim al-Zahrawi (Abulcasis) (936–1013) pioneered the preparation of medicines by sublimation and distillation. His *Liber servitoris* is of particular interest, as it provides the reader with recipes and explains how to prepare the 'simples' from which were compounded the complex drugs then generally used. Sabur Ibn Sahl (d 869), was, however, the first physician to initiate pharmacopoeia, describing a large variety of drugs and remedies for

ailments. Al-Biruni (973–1050) wrote one of the most valuable Islamic works on pharmacology, entitled *Kitab al-Saydalah* (The Book of Drugs), in which he detailed the properties of drugs and outlined the role of pharmacy and the functions and duties of the pharmacist. Avicenna, too, described no less than 700 preparations, their properties, modes of action, and their indications. He devoted in fact a whole volume to simple drugs in *The Canon of Medicine*. Of great impact were also the works by al-Maridini of Baghdad and Cairo, and Ibn al-Wafid (1008–1074), both of which were printed in Latin more than fifty times, appearing as *De Medicinis universalibus et particularibus* by 'Mesue' the younger, and the *Medicamentis simplicibus* by 'Abenguefit'. Peter of Abano (1250–1316) translated and added a supplement to the work of al-Maridini under the title *De Veneris*. Al-Muwaffaq's contributions in the field are also pioneering. Living in the 10th century, he wrote *The foundations of the true properties of Remedies*, amongst others describing arsenious oxide, and being acquainted with silicic acid. He made clear distinction between sodium carbonate and potassium carbonate, and drew attention to the poisonous nature of copper compounds, especially copper vitriol, and also lead compounds. He also describes the distillation of sea-water for drinking.[verification needed]

In Europe there are old pharmacies still operating in Dubrovnik, Croatia, located inside the Franciscan monastery, opened in 1317; and in the Town Hall Square of Tallinn, Estonia, dating from at least 1422. The oldest is claimed to have been set up in 1221 in the Church of Santa Maria Novella in Florence, Italy, which now houses a perfume museum. The medieval Esteve Pharmacy, located in Llívia, a Catalan enclave close to Puigcerdà, also now a museum, dates back to the 15th century, keeping albarellos from the 16th and 17th centuries, old prescription books and antique drugs.

In most countries, the dispensary is subject to pharmacy legislation; with requirements for storage conditions, compulsory texts, equipment, etc., specified in legislation. Where it was once the case that pharmacists stayed within the dispensary compounding/dispersing medications, there has been an increasing trend towards the use of trained pharmacy technicians while the pharmacist spends more time communicating with patients. Pharmacy technicians are now more dependent upon automation to assist them in their new role dealing with patients' prescriptions and patient safety issues.

Because of the complexity of medications including specific indications, effectiveness of treatment regimens, safety of medications (i.e., drug interactions) and patient compliance issues (in the hospital and at home) many pharmacists practicing in hospitals gain more education and training after pharmacy school through a pharmacy practice residency and sometimes followed by another residency in a specific area. Those pharmacists are often referred to as clinical pharmacists and they often specialize in various disciplines of pharmacy. For example, there are pharmacists who specialize in hematology/oncology, HIV/AIDS, infectious disease, critical care, emergency medicine, toxicology, nuclear pharmacy, pain management, psychiatry, anti-coagulation clinics, herbal medicine, neurology/epilepsy management, pediatrics, neonatal pharmacists and more.

Hospital pharmacies can often be found within the premises of the hospital. Hospital pharmacies usually stock a larger range of medications, including more specialized medications, than would be feasible in the community setting. Most hospital medications are unit-dose, or a single dose of medicine. Hospital pharmacists and trained pharmacy technicians compound sterile products for patients including total parenteral nutrition (TPN), and other medications given intravenously. This is a complex process that requires adequate training of personnel, quality assurance of products, and adequate facilities. Several hospital pharmacies have decided to outsource high risk preparations and some other compounding functions to companies who specialize in compounding. The high cost of medications and drug-related technology, combined with the potential impact of medications and pharmacy services on patient-care outcomes and patient safety, make it imperative that hospital pharmacies perform at the highest level possible.

Pharmacists provide direct patient care services that optimizes the use of medication and promotes health, wellness, and disease prevention. Clinical pharmacists care for patients in all health care settings, but the clinical pharmacy movement initially began inside hospitals and clinics. Clinical pharmacists often collaborate with physicians and other healthcare professionals to improve pharmaceutical care. Clinical

pharmacists are now an integral part of the interdisciplinary approach to patient care. They often participate in patient care rounds drug product selection.

The clinical pharmacist's role involves creating a comprehensive drug therapy plan for patient-specific problems, identifying goals of therapy, and reviewing all prescribed medications prior to dispensing and administration to the patient. The review process often involves an evaluation of the appropriateness of the drug therapy (e.g., drug choice, dose, route, frequency, and duration of therapy) and its efficacy. The pharmacist must also monitor for potential drug interactions, adverse drug reactions, and assess patient drug allergies while designing and initiating a drug therapy plan.

In the U.S. federal health care system (including the VA, the Indian Health Service, and NIH) ambulatory care pharmacists are given full independent prescribing authority. In some states such North Carolina and New Mexico these pharmacist clinicians are given collaborative prescriptive and diagnostic authority. In 2011 the board of Pharmaceutical Specialties approved ambulatory care pharmacy practice as a separate board certification. The official designation for pharmacists who pass the ambulatory care pharmacy specialty certification exam will be Board Certified Ambulatory Care Pharmacist and these pharmacists will carry the initials BCACP.

Consultant pharmacy practice focuses more on medication regimen review (i.e. "cognitive services") than on actual dispensing of drugs. Consultant pharmacists most typically work in nursing homes, but are increasingly branching into other institutions and non-institutional settings. Traditionally consultant pharmacists were usually independent business owners, though in the United States many now work for several large pharmacy management companies (primarily Omnicare, Kindred Healthcare and PharMerica). This trend may be gradually reversing as consultant pharmacists begin to work directly with patients, primarily because many elderly people are now taking numerous medications but continue to live outside of institutional settings. Some community pharmacies employ consultant pharmacists and/or provide consulting services.

Since about the year 2000, a growing number of Internet pharmacies have been established worldwide. Many of these pharmacies are similar to community pharmacies, and in fact, many of them are actually operated by brick-and-mortar community pharmacies that serve consumers online and those that walk in their door. The primary difference is the method by which the medications are requested and received. Some customers consider this to be more convenient and private method rather than traveling to a community drugstore where another customer might overhear about the drugs that they take. Internet pharmacies (also known as online pharmacies) are also recommended to some patients by their physicians if they are homebound.

While most Internet pharmacies sell prescription drugs and require a valid prescription, some Internet pharmacies sell prescription drugs without requiring a prescription. Many customers order drugs from such pharmacies to avoid the "inconvenience" of visiting a doctor or to obtain medications which their doctors were unwilling to prescribe. However, this practice has been criticized as potentially dangerous, especially by those who feel that only doctors can reliably assess contraindications, risk/benefit ratios, and an individual's overall suitability for use of a medication. There also have been reports of such pharmacies dispensing substandard products.

Of particular concern with Internet pharmacies is the ease with which people, youth in particular, can obtain controlled substances (e.g., Vicodin, generically known as hydrocodone) via the Internet without a prescription issued by a doctor/practitioner who has an established doctor-patient relationship. There are many instances where a practitioner issues a prescription, brokered by an Internet server, for a controlled substance to a "patient" s/he has never met.[citation needed] In the United States, in order for a prescription for a controlled substance to be valid, it must be issued for a legitimate medical purpose by a licensed practitioner acting in the course of legitimate doctor-patient relationship. The filling pharmacy has a corresponding responsibility to ensure that the prescription is valid. Often, individual state laws outline what defines a valid patient-doctor relationship.

In the United States, there has been a push to legalize importation of medications from Canada and other

countries, in order to reduce consumer costs. While in most cases importation of prescription medications violates Food and Drug Administration (FDA) regulations and federal laws, enforcement is generally targeted at international drug suppliers, rather than consumers. There is no known case of any U.S. citizens buying Canadian drugs for personal use with a prescription, who has ever been charged by authorities.

Pharmacy informatics is the combination of pharmacy practice science and applied information science. Pharmacy informaticists work in many practice areas of pharmacy, however, they may also work in information technology departments or for healthcare information technology vendor companies. As a practice area and specialist domain, pharmacy informatics is growing quickly to meet the needs of major national and international patient information projects and health system interoperability goals. Pharmacists in this area are trained to participate in medication management system development, deployment and optimization.

Specialty pharmacies supply high cost injectable, oral, infused, or inhaled medications that are used for chronic and complex disease states such as cancer, hepatitis, and rheumatoid arthritis. Unlike a traditional community pharmacy where prescriptions for any common medication can be brought in and filled, specialty pharmacies carry novel medications that need to be properly stored, administered, carefully monitored, and clinically managed. In addition to supplying these drugs, specialty pharmacies also provide lab monitoring, adherence counseling, and assist patients with cost-containment strategies needed to obtain their expensive specialty drugs. It is currently the fastest growing sector of the pharmaceutical industry with 19 of 28 newly FDA approved medications in 2013 being specialty drugs.

In most jurisdictions (such as the United States), pharmacists are regulated separately from physicians. These jurisdictions also usually specify that only pharmacists may supply scheduled pharmaceuticals to the public, and that pharmacists cannot form business partnerships with physicians or give them "kickback" payments. However, the American Medical Association (AMA) Code of Ethics provides that physicians may dispense drugs within their office practices as long as there is no patient exploitation and patients have the right to a written prescription that can be filled elsewhere. 7 to 10 percent of American physicians practices reportedly dispense drugs on their own.

In some rural areas in the United Kingdom, there are dispensing physicians who are allowed to both prescribe and dispense prescription-only medicines to their patients from within their practices. The law requires that the GP practice be located in a designated rural area and that there is also a specified, minimum distance (currently 1.6 kilometres) between a patient's home and the nearest retail pharmacy. This law also exists in Austria for general physicians if the nearest pharmacy is more than 4 kilometers away, or where none is registered in the city.

The reason for the majority rule is the high risk of a conflict of interest and/or the avoidance of absolute powers. Otherwise, the physician has a financial self-interest in "diagnosing" as many conditions as possible, and in exaggerating their seriousness, because he or she can then sell more medications to the patient. Such self-interest directly conflicts with the patient's interest in obtaining cost-effective medication and avoiding the unnecessary use of medication that may have side-effects. This system reflects much similarity to the checks and balances system of the U.S. and many other governments. [citation needed]

In the coming decades, pharmacists are expected to become more integral within the health care system. Rather than simply dispensing medication, pharmacists are increasingly expected to be compensated for their patient care skills. In particular, Medication Therapy Management (MTM) includes the clinical services that pharmacists can provide for their patients. Such services include the thorough analysis of all medication (prescription, non-prescription, and herbals) currently being taken by an individual. The result is a reconciliation of medication and patient education resulting in increased patient health outcomes and decreased costs to the health care system.

This shift has already commenced in some countries; for instance, pharmacists in Australia receive remuneration from the Australian Government for conducting comprehensive Home Medicines Reviews.

In Canada, pharmacists in certain provinces have limited prescribing rights (as in Alberta and British Columbia) or are remunerated by their provincial government for expanded services such as medications reviews (Medschecks in Ontario). In the United Kingdom, pharmacists who undertake additional training are obtaining prescribing rights and this is because of pharmacy education. They are also being paid for by the government for medicine use reviews. In Scotland the pharmacist can write prescriptions for Scottish registered patients of their regular medications, for the majority of drugs, except for controlled drugs, when the patient is unable to see their doctor, as could happen if they are away from home or the doctor is unavailable. In the United States, pharmaceutical care or clinical pharmacy has had an evolving influence on the practice of pharmacy. Moreover, the Doctor of Pharmacy (Pharm. D.) degree is now required before entering practice and some pharmacists now complete one or two years of residency or fellowship training following graduation. In addition, consultant pharmacists, who traditionally operated primarily in nursing homes are now expanding into direct consultation with patients, under the banner of "senior care pharmacy."

The two symbols most commonly associated with pharmacy in English-speaking countries are the mortar and pestle and the R (recipere) character, which is often written as "Rx" in typed text. The show globe was also used until the early 20th century. Pharmacy organizations often use other symbols, such as the Bowl of Hygieia which is often used in the Netherlands, conical measures, and caduceuses in their logos. Other symbols are common in different countries: the green Greek cross in France, Argentina, the United Kingdom, Belgium, Ireland, Italy, Spain, and India, the increasingly rare Gaper in the Netherlands, and a red stylized letter A in Germany and Austria (from Apotheke, the German word for pharmacy, from the same Greek root as the English word 'apothecary').

What word is the word pharmacy taken from

its root word pharma

What goods were sold in a pharma

ingredients for medicines, sold tobacco and patent medicines

What did the Greek root pharmakos imply

sorcery or even poison

How would the word apothecary be viewed by contemporary English speakers

outdated or only appropriate if herbal remedies were on offer to a large extent

What else was used by pharmas

many other herbs not listed

What type of professionals are pharmacists

healthcare professionals

What types of health outcomes do pharmacists aim for with their patients

optimal health outcomes

What type of treatment are pharmacists important for

optimisation of a drug treatment for an individual

What other role do many pharmacists play

small-business proprietors

What types of preparation do pharmacists have

specialised education and training

Who oversees a Pharmacy Technician in the UK

other senior pharmacy technicians

With what body must a pharmacy technician register

the General Pharmaceutical Council (GPhC) register

What is a main duty of the GPhC

regulates the practice of pharmacists and pharmacy technicians

What type of professional is a Pharmacy Technician considered to be

health care professional

What types of responsibilities might a pharmacy technician have

manage the pharmacy department and specialised areas in pharmacy practice

Who was a man studying medicinal applicants of plants in Ancient Greece

Diocles of Carystus

What is Pedanius Dioscorides known for

writing a five volume book in his native Greek

What is the name of the Latin translation of Dioscorides' book

De Materia Medica

What term resulted from Dioscorides' book

materia medica

Who added to Dioscorides' book in the Islamic Golden Age

many middle eastern scientists

How were the men who did tasks like those of today's pharmacists viewed in Japan in the Asuka and Nara periods

highly respected

In which two codes were the roles of pharmacists codified

the Taihō Code (701) and re-stated in the Yōrō Code (718)

What put a hierarchical structure in place

the pre-Heian Imperial court

What stature did pharmacists have in the pre-Heian Imperial court

status superior to all others in health-related fields such as physicians and acupuncturists

Where did the pharmacist stand in relation to the Emperor's personal physicians

ranked above

Developments in which scientists influenced the creation of pharmacology in medieval Islam

botany and chemistry

Who was influential in promoting the use of chemical compounds as medicines

Muhammad ibn Zakarīya Rāzi

Who authored the Liber servitoris

Abu al-Qasim al-Zahrawi

Which two compounds did Al-Muwaffaq differentiate between

sodium carbonate and potassium carbonate

Who wrote about the distillation of drinking water from sea water

Al-Muwaffaq

How far does one pharmacy in Croatia date back to

1317

Where is the oldest pharmacy stated to be located

Church of Santa Maria Novella in Florence, Italy

What is the medieval Esteve Pharmacy used as at present

museum

What sorts of items are displayed in the Esteve Pharmacy museum

albarellos from the 16th and 17th centuries, old prescription books and antique drugs

In what year is the oldest pharmacy said to have been established

1221

What is the dispensary subject to in a majority of countries

pharmacy legislation

What responsibilities were pharmacy technicians formerly limited to

within the dispensary compounding/dispensing medications

What do pharmacy technicians depend on more and more

automation

What are new responsibilities pharmacy technicians now deal with

patients' prescriptions and patient safety issues

What does pharmacy legislation mandate

storage conditions, compulsory texts, equipment, etc.

Where do pharmacists acquire more preparation following pharmacy school

a pharmacy practice residency

What do clinical pharmacists specialize in

various disciplines of pharmacy

What is one issue that adds to the complexity of a pharmacist's job

effectiveness of treatment regimens

Which pharmacists are likely to seek additional education following pharmacy school

pharmacists practicing in hospitals

Where are many hospital pharmacies located

within the premises of the hospital

In what form are most hospital medications

unit-dose, or a single dose of medicine

What types of pharmacy functions have begun to be outsourced

high risk preparations and some other compounding functions

What is one factor that increases the importance of the pharmacy performing at a high level

The high cost of medications and drug-related technology

What are some advantages of hospital pharmacies

Hospital pharmacies usually stock a larger range of medications, including more specialized medications

What do the services given by pharmacists provide

optimizes the use of medication and promotes health, wellness, and disease prevention

What is the origin of clinical pharmacy

inside hospitals and clinics

Who do clinical pharmacists work with much of the time

physicians and other healthcare professionals

What do clinical pharmacists often participate in

patient care rounds drug product selection

Where do clinical pharmacists work with patients

all health care settings

What is one example of what a clinical pharmacist's duties entail

creating a comprehensive drug therapy plan for patient-specific problems

What is involved in a review of prescribed medications

an evaluation of the appropriateness of the drug therapy

What are the components of drug therapy

drug choice, dose, route, frequency, and duration of therapy

What are some other factors a pharmacist must monitor

potential drug interactions, adverse drug reactions

What type of authority are ambulatory care pharmacists given in the U.S. federal health care system

full independent prescribing authority

In what states are pharmacist clinicians given prescriptive and diagnostic authority

North Carolina and New Mexico

When was ambulatory care pharmacy approved as its own certification

2011

What will a pharmacist who passes the ambulatory pharmacist exam be called

Board Certified Ambulatory Care Pharmacist

What entities are included in the federal health care system

the VA, the Indian Health Service, and NIH

What is consultant pharmacy mainly concerned with

medication regimen review

Where do a majority of consultant pharmacists tend to work

nursing homes

What are some large pharmacy management companies

Omnicare, Kindred Healthcare and PharMerica

What is the main reason consulting pharmacists are increasingly working directly with patients

because many elderly people are now taking numerous medications but continue to live outside of institutional settings

What do some community pharmacies do

employ consultant pharmacists and/or provide consulting services

When did internet pharmacies begin to come into being

about the year 2000

Who often operates internet pharmacies

brick-and-mortar community pharmacies that serve consumers online and those that walk in their door

What are internet pharmacies also called

online pharmacies

What is one reason a patient might choose an internet pharmacy

another customer might overhear about the drugs that they take

What is the main difference between online pharmacies and community pharmacies

the method by which the medications are requested and received

Why might customers order from internet pharmacies

to avoid the "inconvenience" of visiting a doctor or to obtain medications which their doctors were unwilling to prescribe

Who has criticized ordering from online pharmacies that don't require prescriptions

those who feel that only doctors can reliably assess contraindications, risk/benefit ratios, and an individual's overall suitability for use of a medication.

What is a criticism of online pharmacies that issue drugs without a prescription

dispensing substandard products

What practice do some internet pharmacies engage in

sell prescription drugs without requiring a prescription

What do most online pharmacies do

sell prescription drugs and require a valid prescription

What conditions must be met for a prescription for a controlled substance to be valid

it must be issued for a legitimate medical purpose by a licensed practitioner acting in the course of legitimate doctor-patient relationship

What is one problem with internet pharmacies

the ease with which people, youth in particular, can obtain controlled substances

What conditions must be met to prescribe a controlled substance

it must be issued for a legitimate medical purpose by a licensed practitioner acting in the course of legitimate doctor-patient relationship

What is the obligation of a pharmacy filling a prescription

to ensure that the prescription is valid

Who defines what constitutes a patient-doctor relationship

individual state laws

What is an example of a controlled substance

Vicodin, generically known as hydrocodone

What is a reason for the movement to legalize importing medicines from other countries

to reduce consumer costs

What is one country that has been suggested for importation of medicines

Canada

Who are FDA laws against importing medications aimed at

international drug suppliers, rather than consumers

Has there ever been anyone charged with importing drugs from Canada for personal medicinal use

There is no known case

What is there a push for in the U.S. to reduce consumer drug costs

to legalize importation of medications from Canada and other countries

What two things does pharmacy informatics bring together

pharmacy practice science and applied information science

What fields may pharmacy informatics also work in

information technology departments or for healthcare information technology vendor companies

Whose needs will the growth in pharmacy informatics meet

major national and international patient information projects and health system interoperability goals

What areas are pharmacy informatics prepared to work in

medication management system development, deployment and optimization

How fast is pharmacy informatics growing

quickly

What is the fastest growing area in the pharmaceutical industry

specialty pharmacies

How many drugs approved by the FDA in 2013 were specialty drugs

19

What types of diseases are specialty drugs often

used against

cancer, hepatitis, and rheumatoid arthritis

What types of medications do specialty pharmacies stock

novel medications that need to be properly stored, administered, carefully monitored, and clinically managed

Besides drugs, what else do specialty pharmacies provide

lab monitoring, adherence counseling, and assist patients with cost-containment strategies needed to obtain their expensive specialty drugs

How are pharmacists regulated in most jurisdictions

separately from physicians

Who do most jurisdictions say can give scheduled drugs to the public

only pharmacists

What body has stated that physicians can also dispense drugs under specific conditions

the American Medical Association (AMA)

What is the estimate of how many physicians give out drugs on their own

7 to 10 percent

What are pharmacists forbidden to do

form business partnerships with physicians or give them "kickback" payments

Where are some physicians permitted to prescribe and give out medications within their

practices

In some rural areas in the United Kingdom

What is another country that permits physicians to give out drugs from within their practice

Austria

What is the minimum distance between a patient's home and the nearest pharmacy that allows a physician to give out medication

1.6 kilometres

What is the minimum distance between a patient's home and the nearest pharmacy that allows a physician in Austria to give out medicine

more than 4 kilometers

Why is majority rule used

the high risk of a conflict of interest and/or the avoidance of absolute powers

Why might a physician diagnose a large number of conditions

because he or she can then sell more medications to the patient

What do rules about conflict of interest involving doctors diagnosing patients resemble

the checks and balances system of the U.S. and many other governments.

Where might the doctor's self-interest be at odds with the patient's self-interest

in obtaining cost-effective medication and avoiding the unnecessary use of medication that may have side-effects

How else might a physician take advantage of

self-interest

exaggerating their seriousness

What will be the importance of the pharmacist in coming decades

expected to become more integral within the health care system

What responsibilities are pharmacists believed to be taking on more in the future

increasingly expected to be compensated for their patient care skills

What is included in Medication Therapy Management

clinical services that pharmacists can provide for their patients

What are examples of clinical services that pharmacists can provide

thorough analysis of all medication (prescription, non-prescription, and herbals) currently being taken by an individual

What are outcomes expected with Medication Therapy Management

a reconciliation of medication and patient education resulting in increased patient health outcomes and decreased costs to the health care system

Which provinces in Canada limit the rights of pharmacists in prescribing

Alberta and British Columbia

Who pays Australian pharmacists for doing Home Medicines Reviews

the Australian Government

What are pharmacists in the United Kingdom being increasingly paid for

medicine use reviews

What fields have increased in influence on pharmacy in the United States

pharmaceutical care or clinical pharmacy

What degree is now mandatory in the U.S. in order to be a licensed pharmacist

Doctor of Pharmacy (Pharm. D.)

What are the two symbols that signify pharmacy in English-speaking countries

the mortar and pestle and the R (recipere) character

What symbol was employed until early in the 20th century

The show globe

What country uses the Bowl of Hygieia as a symbol of pharmacy

the Netherlands

What countries use a red stylized A to signify pharmacy

Germany and Austria

Which countries use the green Greek cross as a symbol of pharmacy

France, Argentina, the United Kingdom, Belgium, Ireland, Italy, Spain, and India