# Unit Pharmaceutical industry制药行业

# REF: The “Medical industry”

In C:\Tracy\TW related\English\IETLS\oral topic\2 EF oral topics - Script based on Level\EF L17\_FieldSpecific\Industry English\Medical industry

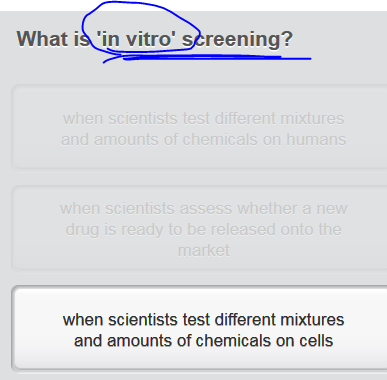
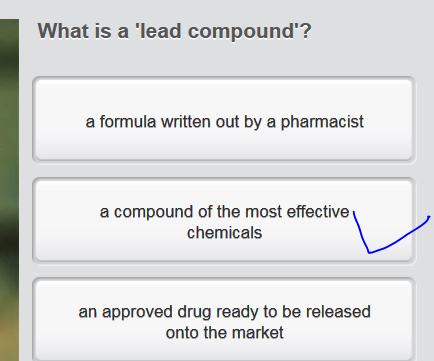
# Lexical resource

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| **对 <xxx事情的发生>抱有一线希望** | **对 <xxx事情的发生>抱有一线希望 [ on the off-chance that sth will/would happen ]** if you do something on the off-chance that something will happen, you do hope that it will happen although it is unlikely.  E.G. I just came to see you **on the off-chance that** Pippa might be here. 我来看你只是抱着一丝希望皮帕或许会在这儿。  E.G. After the call ended, officials from the Ministry of Unification -- responsible for "all issues pertaining to inter-Korean relations and unification" -- stayed by the phone, **on the off-chance that** the North would call again. The DMZ village is home to 33 communications lines between South and North Korea, according to the Ministry of Unification. |
| 1.(e.g. economy)衰退(貌似也不再有进展/进步) ;  2.  失去了信心，做xxx事情犹豫 | /ˈfɔːltə/ falter   1. [V-I](javascript:;)If something falters, it loses power or strength in an uneven way, or no longer makes much progress. 衰退(貌似也不再有进展/进步)  **[经济正在衰退(貌似也不再有进展/进步): the economy is faltering/melting down]** e.g. Normal life is **at a standstill陷入停滞**, and **the economy is faltering/melting down**. We’d foresee a severe **economic recession (//Great Depression经济大萧条)**.      1. [V-I](javascript:;)**对 < xx事情> 失去了信心，对做<xxx事情> 犹豫/动摇 [ falter in sth ]** If you falter or falter in sth, you lose your confidence and stop doing something or start making mistakes.   e.g. I have not **faltered in** my **quest/pursuit for a new future.**  我 **对<**崭新未来>的**追求**未曾犹豫过/动摇过。  e.g. I have not **faltered in** my **quest for new knowledge**.  **//对<xxx>的追求 N) my quest for sth (knowledge)**  V.S **pain/stress/pressure abates: become less strong, weaker or decrease V.S. mitigate/alleviate pain/stress/pressure** |

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| proprietary [prə'praɪət(ə)rɪ]      n. 所有权；所有人 adj. 所有的；专利的；私人拥有的  1.[ADJ](javascript:;)Proprietary substances or products are sold under a brand name. 品牌专卖的 [**proprietary brands**]   ...some **proprietary brands** of dog food.  …一些专卖狗粮的品牌。  2 [**proprietary drugs /prə'praɪət(ə)rɪ/**[**专卖药**](javascript:;) **= OTC(over the counter) 非处方药]**  e.g In the United States, the FDA **determines** how drugs are produced and how they are sold. Drugs that can be sold **over the counter (OTC),** without a prescription处方 from a physician医师/内科医师, are called **proprietary[prə'praɪət(ə)rɪ] drugs**[**专卖药**](javascript:;)**.** They are considered safe for unsupervised use by the general public. |
| [ stipulate sth = regulate sth规定xxx, 对xxx 有明确的规定和要求 ]  V. stipulate sth; N) stipulation  stipulate /ˈstɪpjʊˌleɪt/    1. [V-T](javascript:;)If you stipulate a condition or stipulate that something must be done, you say clearly that it must be done. 规定xxx, 对xxx 有明确的规定和要求  e.g. The current rules **stipulate**one member of staff for every eight children over three years old.  e.g. Even if you terminate early, most wedding contracts **stipulate** that a deposit will not be refunded/rebated.  e.g.  Clifford's only stipulation is that his clients obey his advice.   克里弗德惟一的规定是他的客户必须听从自己的建议。  e.g. The **Food and Drug Administration (FDA)** is the government agency responsible for **regulating/stipulating** food and medical treatments in the United States. Its responsibilities include ensuring that drugs and**治疗仪 therapeutic devices[,θerə'pjuːtɪk]** are safe and effective for their intended uses and that labels and packaging of products are truthful and informative.  2. stipulate /ˈstɪpjʊlɪt, -ˌleɪt/  [ADJ](javascript:;)(of a plant) having stipules (植物)具托叶的 |
| 精力(体力, 耐力, 持久力); 毅力(mental)); 活力['stæmɪnə] [stæmənə] stamina  [ 精力(体力, 耐力, 持久力): physical stamina; 毅力(mental): mental stamina; 毅力和决心: stamina and determination]  Stamina is physical or mental strength that lets you continue doing something for a long time without getting tired  持久力，耐力，毅力  e.g. You need **physical stamina** to be a long-distance runner. 当长跑运动员需要 **体力, 耐力, 持久力**。  e.g. Elaine has **the stamina and the determination** to succeed. 伊莱恩具有成功所需的 **毅力和决心**。  e.g. Most employees in the construction industry work full time, and many work over 40 hours a week. Construction workers often work evenings, weekends and holidays to finish a job**. The nature of the work**工作性质 requires **physical stamina 精力(体力, 耐力, 持久力)**, as the body has to be able to cope with **prolonged** standing, bending, **stooping [stuːp]弯腰驼背**and working in small spaces. |
| vi. 弯腰驼背；屈服；**堕落到/卑鄙到做xxx** n. 弯腰驼背，屈服  [stuːp] stoop V.S. give sb. a piggyback将sb背在/驮在背上 V.S. [ in a condescending manner/way]  1.[V-I](javascript:;)If you stoop, you stand or walk with your shoulders bent forward. 驼背 e.g.  She was taller than he was but stooped slightly.   她比他高，但有点儿驼背。  2 [N-SING](javascript:;)Stoop is also a noun. 驼背 e.g. He was a tall, thin fellow with a slight stoop. 有点儿驼背的瘦高个男子。  3. [N](javascript:;)stoop is small platform with steps up to it at the entrance to a building 小门廊  4. [V-I](javascript:;)If you stoop, you bend your body forward and downward. 弯腰  e.g. He **stooped** to pick up the carrier bag of groceries.   他弯腰提起装满食品杂货的购物袋。  e.g. We had to **stoop** to pass through the low entrance. 我们得弯腰通过那低矮的入口。  e.g. Dave **stooped** down to tie his shoes. 戴夫俯身系鞋带。  e.g. Most employees in the construction industry work full time, and many work over 40 hours a week. Construction workers often work evenings, weekends and holidays to finish a job**. The nature of the work**工作性质 requires **physical stamina 精力(体力, 耐力, 持久力)**, as the body has to be able to cope with **prolonged** standing, bending, **stooping [stuːp]弯腰驼背**and working in small spaces.  5. [V-I](javascript:;) **Sb. 堕落到做xxx/卑鄙到做xxx.** If you say that a person **[stoop to sth; stoop to doing something],** you are criticizing them because they do something wrong, immoral or unethical[ʌn'eθɪk(ə)l]不道德的 that they would not normally do.  e.g. He had not, until recently, **stooped to personal abuse**.  他最近才**堕落到/卑鄙到<**进行人身攻击>。  e.g. I didn’t expect you to **stoop to bribery and corruption** 我没料到你竟然**堕落到/卑鄙到<**会贿赂腐败>。  6. **[降低到sb’s 的档次stoop to sb’s level; stoop to that level]**  e.g. Don’t stoop to her level. 别把自己 **降低到她的档次**。  e.g. Don’t stoop to that level!  V.S. piggyback   |  | | --- | | piggyback /ˈpɪɡɪˌbæk/ (piggybacking,piggybacked,piggybacks) 1. N If you **[ give someone a piggyback ]**, you carry them high on your back, supporting them under their knees. 将sb背在/驮在背上  e.g They give each other piggyback rides. 他们将彼此背在背上。 2. ADV Piggyback is also an adverb. 驮  e.g My father carried me up the hill, piggyback. 爸爸把我驮在背上  3. V-I If you **[piggyback on something]** that someone else has thought of or done, you use it to your advantage. 借用,利用（别人已经发明的已有的技术，知识等）来做xxx, 站在巨人的肩膀上  e.g. I was just **[piggybacking on]** Stokes's idea. 我只是借用史都克的想法而已。  e.g. I was just  **[piggybacking on]** the powerful .sh and .css scripts written by Jeff and then customize it a little to fit for DP project. Thanks so much, Jeff.  e.g. They are  **[piggybacking on]**  the developed technology. 他们利用已发展的科技 |   V.S. condescend   |  | | --- | | condescend /ˌkɒndɪˈsɛnd/ descend, descendant 后裔；子孙 => condescend V => condescending adj. 1. 屈尊去做什么 (表不满) V-T If someone **[ condescends to do something ],** they are normally reluctant to do it; but finally agree to do it, but in a way which shows that they think they are better, more superior, and more important than other people and should NOT have to do it. They think they deserve to do sth more important or more valuable  e.g. When he **condescended to speak**, he expressed impatience and refused to answer any questions. 当他屈尊讲话时，他表现出不耐烦 。  e.g. The tech lead **condescended to** attend that meaningless seminar.  2. V-I对sb.摆出高人一等的架子; 高高在上的架子; 用居高临下的架子 If you say that someone **[ condescends to other people],** you are showing your disapproval of the fact that they behave in a way which shows that they think they are superior to other people.  e.g. **Don't condescend to me 不要对我摆出高人一等的样子**。  e.g. As parents, don't condescend to your children.  => **[ 用居高临下的口吻(高高在上的架子) 和sb.说话: talk down to sb. in a condescending manner/way/attitude]**  e.g Don’t **talk down to coworkers in a condescending manner**, including subordinates. 不要 用居高临下的口吻(高高在上的架子) 和同事说话，包括下属  e.g. Even though you're the father, you shouldn't **talk down to your kids in that condescending manner**. | |
| /'ʃæbi,ˋʃæbɪ/ adj. shabby  => comparative: shabbier; su’perlative [suːˈpəːlətɪv]: shabbiest  => DERIVATIVE 派生词=> **shabbily adv; shabbiness n [U]**   1. shabby clothes, places, or objects are untidy and in bad condition because they have been used for a long time又脏又破的(衣服，东西，地方); 肮脏破旧的(地方) **[ old and shabby ]** e.g. a shabby little hawker小贩中心 in a **run-down** community 一家肮脏的小贩中心 e.g. His clothes are old and shabby.   他的衣服又旧又破。 2. wearing clothes that are old and worn 衣衫褴褛的，衣着寒酸的  **[ a shabby tramp 一个衣衫褴褛的流浪汉 ; a shabby begger ]** 3. shabby: unfair and unkind不公平的；不仁慈的 **[ 卑鄙的花招shabby tricks/maneuvers/ruses/artifices]**   肮脏破旧的(地方) a shabby place/ restaurant; a shabby **hawker**: 一家肮脏的小贩中心  V.S.   |  | | --- | | 破旧的，破落的〔建筑物或地区〕: **a run-down area; a run-down building; a run-down community**   1. a building or area that is run-down is in very bad condition 破旧的，破落的〔建筑物或地区〕 2. [not before noun, 不用于名词前] someone who is run-down is tired and not healthy精疲力竭的，衰弱的 e.g. You look a bit run-down. 你看上去有点疲倦。 | |
| Noun ['fleər,ʌp] flare-up   1.a situation in which someone suddenly becomes angry or violent〔怒气或暴力的〕突然爆发（. 火焰、光等的骤发或骤燃）  e.g. **Apart from** one or two **flare-ups of violence**, the match went fairly smoothly. 除了一两次冲突外，比赛进行得还算顺利。  e.g. There's been a **flare-up of violence** in South Africa.  南非的暴力冲突曾一度升级  2.a situation in which someone suddenly has problems because of a disease or illness after not having any problems for a long time [**〔疾病的〕突然复发: a flare-up of a *disease* ]**  e.g**. a flare-up of her arthritis [ɑː'θraɪtɪs]** 她关节炎的 **突然复发**  e.g. **a flare-up of her asthma** ['æzmə] 她哮喘的 **突然复发** |

# Lexical\_ParmacyRelated

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| (药剂师) 配发 (药); 配售 (药) [ dispense medicine ]: When [ a pharmacist 药剂师 dispenses medicine ], he or she prepares it, and gives or sells it to the patient or customer. 配发 (药); 配售 (药)  e.g. **By comparison**, the drugs that must be **prescribed by physicians医师/内科医师** and **dispensed配售 (药) by pharmacists药剂师** are known as **ethical drugs.** The key is that their use is monitored closely by medical personnel. |
| n. 治疗，疗法therapy ['θɛrəpi] 复数:therapies  1.[N-UNCOUNT](javascript:;)Therapy is the process or talking to a trained counsellor about **your emotional and mental problems** and your relationships in order to understand and improve the way you feel and behave. 心理治疗  •  Children may need psychological therapy心理治疗 to help them deal with grief and death.  •  Since I've been in therapy, I've grown to be a better husband and father.   自从我接受心理治疗后。  2.　[N-VAR](javascript:;)Therapy or a therapy is a treatment for a particular illness or condition. (针对某种病情的) 治疗  •  ...hormonal therapies.  …激素疗法。 Herbal therapy;  V.S.   |  | | --- | | n. 临床医学家；治疗学家therapist  /'θɛrəpɪst/  someone who has been trained to give a particular form of treatment **for physical or mental illness** 治疗专家 | | [,θerə'pjuːtɪk] therapeutic  adj. 治疗的；治疗学的；**使人镇静并放松的**n. 治疗剂；治疗学家  1. **Adj) making you feel calm and relaxed 使人镇静并放松的**  e.g. I find swimming very **therapeutic**. 我觉得游泳能让人很放松。  e.g. the **therapeutic** effect of gardening 园艺劳动使人放松的作用  2. [usually before noun,一般用于名词前] relating to the treatment or cure of an illness  治疗的 **[治疗仪器；治疗仪: therapeutic devices[,θerə'pjuːtɪk] ]**    e.g. Some claim that the herb has **therapeutic value** for treating pain. 有些人称这种草药具有止痛的疗效。  e.g. The **Food and Drug Administration (FDA)** is the government agency responsible for **regulating/stipulating food and medical treatments** in the United States. Its responsibilities include ensuring that drugs and **therapeutic devices[,θerə'pjuːtɪk]** are safe and effective for their intended uses and that labels and packaging of products are truthful and informative.  e.g. Before 1900, any individual could sell a drug without providing medical proof of the **therapeutic [,θerə'pjuːtɪk] benefits.** The first law passed to change this was the Pure Food and Drug Act of 1906, which required drug manufacturers to state the content, strength and purity of each drug they produced.  e..g Concentrating on four **therapeutic areas** (anti-infectives, central nervous system, respiratory and gastro-metabolic), among its most prominent products are Paxil, for depression, and Advair, for asthma. GSK is a leader in the vaccine area and has a growing portfolio of oncology products, including Hycamtin and Zofran for treating cancer. | |
| **[治疗仪; 治疗仪器(e.g.烘烤机): therapeutic devices[,θerə'pjuːtɪk]]**  e.g. The **Food and Drug Administration (FDA)** is the government agency responsible for **regulating/stipulating** food and medical treatments in the United States. Its responsibilities include ensuring that drugs and**治疗仪 therapeutic devices[,θerə'pjuːtɪk]** are safe and effective for their intended uses and that labels and packaging of products are truthful and informative. |
| microorganism /ˌmaɪkrəʊˈɔːɡəˌnɪzəm/  A microorganism is a very small living thing which you can only see if you use a microscope. 微生物 |
| [ bacterial and fungal infections]  e.g. Antibiotics are a group of organic compounds that kill or inhibit the growth of microorganisms that cause bacterial and fungal infections ['fʌŋg(ə)l]真菌的 |
| [Method of administration](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=Method%20of%20Administration&lang=en)  1. **pharmaceuticals药物的使用方法 e.g.口服by mouth／喷inhalation／静脉注射**;  2. 管理方法;  3. 政府当局的方法 |
| ['sʌnskriːn] sun screen = sun block: a cream or oil that you rub into your skin to stop the sun from burning you 防晒霜；防晒油 |
| 疫苗vaccine /ˈvæksiːn/  A vaccine is a substance containing a harmless form of the germs that cause a particular disease. It is given to people, usually by injection, to prevent them from getting that disease. 疫苗  •  Anti-malarial vaccines are now undergoing trials.   抗疟疾疫苗现在正处于试验阶段。  V)  vaccinate /ˈvæksɪˌneɪt**/  (针对xxx病)** [**打疫苗**](javascript:;)  **[ vaccinate sb. against a disease; sb/animal is vaccinated against a disease ]**     1. [V-T](javascript:;)If a person or animal is vaccinated, they are given a vaccine, usually by injection, to prevent them from getting a disease. 给…接种疫苗   •  Dogs must be vaccinated against distemper.   犬类必须接种疫苗以防犬热病。  •  Have you had your child vaccinated against whooping cough?  你给你的孩子接种预防百日咳的疫苗了吗？  All children should be vaccinated against measles. 所有儿童都应该接种麻疹疫苗  2.[N-VAR](javascript:;)疫苗的接种  •  Anyone who wants to avoid the flu should consider getting a vaccination.   任何希望避免患流感的人都应该考虑接种疫苗。  Vaccination:  [,væksɪ'neɪʃən]vaccination n. 接种疫苗；种痘 |
| ['efikəsi] efficacy capacity or power to produce a desired effect **[西药的效力 the efficacy of the medicine; 中草药的效力 the efficacy of herbs; the efficacy of the vaccine 疫苗]**  e.g I'm actually surprised that WATSON hasn't yet been used to examine the efficacy of herbs over heavy-duty pharmaceuticals [,fɑrmə'sutɪkl] 制药（学）的 now that it is learning Chinese. e.g We must have concerns about the safety and efficacy of the vaccine.  e.g. Greater sample sizes and a longer follow-up period are required to fully determine the long-term safety and efficacy疗效 of this minimally invasive surgical technique微创外科治疗. |
| 临床试验clinical trial:  When a new type of drug or medical treatment undergoes clinical trials, it is tested directly on patients to see if it is effective.  •  Two rival laser surgery systems are undergoing clinical trials in the U.S.   两个竞争的激光手术系统正在美国进行临床试验。 |
| [plə'siːbəʊ] placebo 安慰剂 ；为死者所诵的晚祷词 复数 placebos或placeboes   1. [N-COUNT](javascript:;)A placebo is a substance **with no chemical effects** that a doctor gives to a patient instead of a drug. **Placebos are used when testing new drugs or sometimes when a patient has imagined their illness.** (无药用效果的)安慰剂(常用于测试新药); 无效对照剂〔无害物质，无药理成分，病人在不知情的情况下服用，常用于测试新药〕 ; **a harmless substance** given to a sick person instead of medicine, **without telling them it is not real**. Placebos are often used in tests in which some people take real medicine and others take a placebo, so that doctors can compare the results to see if the real medicine works properly. 2. placebo effect when someone feels better after taking a placebo, even though it has not had any effect on their body 安慰剂效应 |
| [in'vi:trəu, -'vi-] in vitro  在体外；在试管内  in vitro /ɪn ˈviːtrəʊ/  [ADJ](javascript:;)In vitro fertilization is a method of helping a woman to have a baby in which an egg is removed from one of her ovaries, fertilized outside her body, and then replaced in her womb. 在试管中的; 体外的  [in-vitro embryos](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=in-vitro%20embryos&lang=en) 试管胚胎; [in-vitro degradation](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=in-vitro%20degradation&lang=en) 体外降解   1. This is a very significant achievement because the early stage of the human ovarian follicle is reallyhard to grow in vitro.  这是一个很重要的成就，因为在初期，人类的卵泡在试管内非常难以生长。 2. It would be nice if we could study hepatitis in a culture dish, but unfortunately [liver cells] lose theirproperties in vitro.   如果我们可以在培养的细胞上研究肝炎的话，那也是一种不错的方法，但不幸的是肝细胞在体外中失去了它们的特性”。  V.S.   |  | | --- | | [in'vi:vəu, -'vai-] in vivo  [生物] 在活的有机体内  [ADV/ADJ](javascript:;)(of biological processes or experiments) occurring or carried out in the living organism (生物过程或实验)生物体内的; 在活的有机体中 (e.g. animal, human)  **[ in vivo testing (在动物/人类的身体上进行的）活体测试]**  e.g. Phase: clinical trial/medical trial 临床试验 – ‘in vivo’ testing    // in vivo  [生物] 在活的有机体内 (of biological processes or experiments) occurring or carried out in the living organism (生物过程或实验)生物体内的; 在活的有机体中 (e.g. animal, human)        // [plə'siːbəʊ] placebo 安慰剂 | |
| [ NCE, new chemical entity] |
| indication /ˌɪndɪˈkeɪʃən/ [N-VAR](javascript:;)An indication is a sign that suggests, for example, what people are thinking or feeling. 象征; 迹象  •  He gave no indication that he was ready to compromise.  他没有流露出打算妥协的迹象 |
| Indicate => [kɒntrə'ɪndɪkeɪt] contraindicate /ˌkɒntrəˈɪndɪˌkeɪt/ 过去式 contraindicated过去分词 contraindicated现在分词 contraindicating  [V](javascript:;)to advise against or indicate the possible danger of (a drug, treatment, etc) 告知或显示(药物或治疗)可能导致的危险 (说明药品不适用于某些人服用，禁止服用)  vt. 禁忌（某种疗法或药物）；显示（治疗或处置）不当  e.g. However, heparin anticoagulant properties and the potential of bleeding complications may contraindicate its use. 但是肝素的抗凝血活性带来的潜在出血危险限制了应用。  e.g. The changes in the **chest radiograph** demonstrated that it appeared to contraindicate further attempts with this mode of treatment.  胸片的改变表明再进一步行这种治疗是不当的。  =>   |  | | --- | | Indication =>  [医] 禁忌症(说明药品不适用于某些人服用，禁止服用) contraindication /ˌkɒntrəˌɪndɪˈkeɪʃən/  Contraindications are specific medical reasons for not using a particular treatment for a medical condition in the usual way.    e.g. Contraindications for this drug include liver or kidney impairment.   肝肾不好的人不能服用此药。  e.g. What contraindication does this new medicine have?  (这个药) 有什么禁忌症吗？  e.g. Age should not **be the contraindication of** anus-retained operation only if there is exact evidence to prove incontinence would occur after the operation.  只要没有确切证据的显示高龄患者术后将出现失禁，年龄不应成为低位直肠癌保肛手术的禁忌症。  e.g. "However, based on the serious nature of the review findings, the FDA requested and the **pharmaceutical manufacturer** agreed to add a new **contraindication禁忌症** to the drug label  FDA要求制造商在药品标签上加上新的禁忌症 | |
| [dəʊs] dose  N:   1. the amount of a medicine or a drug that you should take 〔药物的〕一剂，一服；一次服用量 [+ of]   •Never exceed the recommended dose of painkillers. 服用止痛药不可超过建议的剂量。  high/low dose  •Start with a low dose and increase it. 从小剂量开始，然后再增加。   1. **an amount of something that you do or experience at one time, especially something unpleasant**   **一次，一番，一回〔尤指不愉快的经历〕**  •I quite like Jamie in small doses (= in limited amounts but not a lot or often ) . 如果偶尔在一起的话，我还是蛮喜欢杰米的。  a bad/mild dose of flu (=making you feel very ill or only slightly ill)严重的/轻微的流感  •Dave had a bad dose of flu. 戴夫得了严重的流感。  lethal/fatal dose (of sth) (=an amount that kills)（某物）致命的剂量  •a lethal dose of radiation 致命的放射剂量   1. like a dose of salts: informal very quickly and easily 很快且很轻易地   •The cleaners went through the house **like a dose of salts** . 清洁工又快又轻松地把房子打扫了一遍。  V:  (dose up) v.= to give someone medicine or a drug 给〔某人〕服药 [ dose sb/yourself with sth ]  e.g. Sumi dosed herself up with aspirin and went to bed. 舒米服用了阿司匹林，然后就上床睡觉了。 |

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| --- | --- |
| adj. 制药（学）的 n. 药物 | pharmaceutical [,fɑ:mə'sju:tikəl] n. drug or medicine that is prepared or dispensed 配发 (药); 配售 (药) in pharmacies and used in medical treatment //配发 (药); 配售 (药)dispense medicine: When a pharmacist 药剂师 dispenses medicine, he or she prepares it, and gives or sells it to the patient or customer. 配发 (药); 配售 (药)  e.g. **By comparison**, the drugs that must be **prescribed by physicians医师/内科医师** and **dispensed配售 (药) by pharmacists药剂师** are known as **ethical drugs.** The key is that their use is monitored closely by medical personnel. |
| 药剂师 | ['fɑːməsɪst] pharmacist n. 药剂师A pharmacist is a person who is qualified to prepare, dispense medicines分发药, and sell medicines and give professional advice on their use药剂师  e.g. Ask your **general practitioner (GP家庭医生)** and pharmacist for advice.  向你的 药剂师 征询意见吧。  e.g. **By comparison**, the drugs that must be **prescribed by physicians医师开处方**and **dispensed配售 (药) by pharmacists药剂师** are known as **ethical drugs.** The key is that their use is monitored closely by medical personnel.   |  | | --- | | 配发 (药); 配售 (药)dispense medicine: When a pharmacist 药剂师 **dispenses medicine**, he or she prepares it, and gives or sells it to the patient or customer. 配发 (药); 配售 (药) |   [词条图片](javascript:;) |
|  | pharmacy /ˈfɑːməsɪ/  = pharmaceutics /ˌfɑːməˈsjuːtɪks/ →same as [pharmacy](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=pharmacy)   1. [N-COUNT](javascript:;)A pharmacy is a shop or a department in a shop where medicines are sold or given out. 药店; 药房   Pick up the medicine from the pharmacy.   从药房取药。 2. [N-UNCOUNT](javascript:;)Pharmacy is the job or the science of preparing medicines. 制药业; 药剂学 e.g.  He spent four years studying pharmacy. 他花了4年时间学习 药剂学。 |
|  | pharmaceutical /ˌfɑːməˈsjuːtɪkəl/   1. [ADJ](javascript:;)Pharmaceutical means connected with the industrial production of medicines. 制药的  **[一家制药公司a pharmaceutical company ]**   ...a Swiss pharmaceutical company.  …一家瑞士制药公司。 2. [(plural form)](javascript:;)**Pharmaceuticals [ˌfɑ:mə'sju:tɪklz]**are medicines. 药品; 药物 e.g. Antibiotics were of no use, neither were other **pharmaceuticals**.   抗生素没有用，其他药物也没有用。 |
|  | pharmacology /ˌfɑːməˈkɒlədʒɪ/  1. N- Pharmacology is the branch of science relating to drugs and medicines. 药理学; 药物学  2. => pharmacological [,fɑːməkə'lɒdʒɪkəl] adj. 药理学的  **[ 药理效果pharmacological effects]**  e.g. As little as 50 mg of caffeine can produce pharmacological effects.  仅仅50毫克的咖啡因就能产生 药理效果。 |

## Lexical\_NamesOfParmaceuticals药物/药品的名称

|  |  |
| --- | --- |
| 盘尼西林（青霉素） is a type of antibiotics | 盘尼西林（青霉素）penicillin /ˌpɛnɪˈsɪlɪn/  [N-UNCOUNT](javascript:;)Penicillin is a drug that kills bacteria and is used to treat infections. 青霉素 |
| 氨比西林, is a type of antibiotics | ampicillin /ˌæmpɪˈsɪlɪn/ [N](javascript:;)a semisynthetic penicillin used to treat various infections氨比西林 |
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## Lexical\_[MethodofAdministration](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=Method%20of%20Administration&lang=en)(pharmaceuticals药物的使用方法:口服/静脉注射)

// [Method of Administration](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=Method%20of%20Administration&lang=en) 1. pharmaceuticals药物的使用方法 e.g.口服／喷／静脉注射; 2. 管理方法; 2. 政府当局的方法

|  |  |
| --- | --- |
| [Method of Administration](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=Method%20of%20Administration&lang=en) | pharmaceuticals药物/药品的使用方法 e.g.口服／吸入药剂(比如哮喘需要的喷雾)  ／静脉注射 |
| （药）口服 | [ by mouth（药）口服] |
| 静脉注射 | **[静脉注射intravenous injection (IV) ] = intra + vein静脉血管**   [‚ɪntrə'viːnəs]  [only before noun,仅用于名词前] through or into a **vein**静脉血管　(= tube in the body taking blood back to the heart ) , intravenously adv  **[ intravenous drug users 使用静脉注射的吸毒者 ]** |
| 肌肉注射 | **[肌肉注射 an intramuscular injection = IM] = intra + muscular**  [,ɪntrə'mʌskjʊlə] intramuscular  肌肉的；肌肉内的: within a muscle 肌肉内的 (Abbreviation (esp of an injection) IM, i.m) |
| 静脉注射；静脉注射用药物 | [ɪn'fjuːʒən]  infusion   * + [C,U] the act of putting a new feeling or quality into something 〔新感觉或品质的〕注入，灌输 [+ of] e.g. Further education badly needs the infusion of more resources. 进修教育非常需要更多资源的注入。   + **[ intravenous[‚ɪntrə'viːnəs] infusion]** medical the act of putting medicine slowly into someone’s body, or the medicine itself 注射；注射用药物 e.g. intravenous infusions of cardiac drugs 心脏病药物的静脉注射   + [C] a drink made with herbs in hot water that is usually taken as a medicine 草药泡剂；用香草泡的茶(当做药引用)     V)  [ɪn'fjuːz]  1. [T] formal to fill something or someone with a particular feeling or quality  使充满〔某种感觉〕；向…灌输〔某一品质〕  be infused with sth  •Her books are infused with humour and wisdom. 她的书充满了幽默和智慧。  infuse sth into sth  •These new designers are infusing fresh interest into the New York fashion scene. 这些新设计师把有创意的元素带入了纽约时装界。  2.[I,T] if you infuse tea or herbs or if they infuse, you leave them in very hot water while their taste passes into the water〔用热水〕泡(茶或香草) (当做药引用) |
| 吸入药剂(比如哮喘需要的喷雾) | [,ɪn**hə**'leʃən] inhalation  n. 吸入；吸入药剂(比如哮喘需要的喷雾)   * [N-VAR](javascript:;)Inhalation is the process or act of breathing in, taking air and sometimes other substances into your lungs. 吸气 e.g.  They were taken to the hospital suffering from **smoke inhalation.**   他们因吸入浓烟被送进医院 e.g  Take several **deep inhalations**.   做几次深的吸气。 * [N-COUNT](javascript:;)An inhalation is a treatment for colds and other illnesses, e.g. asthma, in which you dissolve substances in hot water and breathe in the vapour. 吸入药剂(比如哮喘需要的喷雾) [词条图片](javascript:;)   e.g. Inhalations吸入药剂can soothe缓解 and control the cough, esp effective for persons who suffer from **asthma ['æsmə],** esp during **a flare-up of the asthma**哮喘的 **突然复发.**  **//** [**〔疾病的〕突然复发: a flare-up of a *disease* ]** is a situation in which someone suddenly has problems because of a disease or illness after not having any problems for a long time  e.g**. a flare-up of her arthritis [ɑː'θraɪtɪs]** 她关节炎的 **突然复发**  e.g. **a flare-up of her asthma** ['æzmə] 她哮喘的 **突然复发** |
| n. [医] 预防；预防法 | [,prɒfɪ'læksɪs] prophylaxis  n. [医] 疾病预防；预防法 Prophylaxis is a treatment for preventing disease; is the prevention of disease or control of its possible spread  复数 prophylaxes: |

## Lexical\_personnelInMedical

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| --- | --- |
| 外科医生surgeon | A surgeon is a doctor who is specially trained to perform surgery. 外科医生  •  ...a heart surgeon.   …一位心脏外科医生。 |
| 医师; 内科医生Physician | e.g. **By comparison**, the drugs that must be **prescribed by physicians医师开处方**and **dispensed配售 (药) by pharmacists药剂师** are known as **ethical drugs.** The key is that their use is monitored closely by medical personnel. |
| 药剂师pharmacists | e.g. When a pharmacist 药剂师 **dispenses medicine,** he or she prepares it, and gives or sells it to the patient or customer. 配发 (药); 配售 (药)  e.g. **By comparison**, the drugs that must be **prescribed by physicians医师开处方**and **dispensed配售 (药) by pharmacists药剂师** are known as **ethical drugs.** The key is that their use is monitored closely by medical personnel. |
| 住院医师 A resident or a resident doctor | A resident or a resident doctor is a doctor who is receiving a period of specialized training in a hospital after completing his or her internship. 住院医师  e.g. Many resident doctors complain that they are assigned too many duties that are usually not performed by physicians.   很多住院医师抱怨他们被指派了太多通常不由内科医生完成的职责 |
| 儿科医生pediatrician | [ˌpiː***diə****'*trɪʃn] pediatrician  儿科医师（等于pediatrist） |
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## Lexical\_Proprietary drugs(OTC) V.S. ethical drugs

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| --- | --- |
| OTC(over the counter) 非处方药＝Proprietary drugs 　prə'praɪət(ə)rɪ]   [专卖药](javascript:;) | In the United States, the FDA **determines** how drugs are produced and how they are sold. Drugs that can be sold **over the counter (OTC),** without a prescription处方 from a physician医师/内科医师, are called **proprietary[prə'praɪət(ə)rɪ] drugs**[**专卖药**](javascript:;)**.** They are considered safe for unsupervised use by the general public.  The U.S. government and its regulatory agencies continually monitor the development and use of all drugs sold in the United States to ensure that the American public has access only to drugs that are safe and effective. For example, the FDA recently introduced legislation requiring warning labels on all **over-the-counter (OTC非处方药)** medication after research indicated that the non-aspirin pain reliever acetaminophen can cause liver damage when taken in high doses in combination with large quantities of alcohol. |
| 凭医生处方出售的药品，处方药ethical drugs | **By comparison**, the drugs that must be **prescribed by physicians医师开处方**and **dispensed配售 (药) by pharmacists药剂师** are known as **ethical drugs.** The key is that their use is monitored closely by **medical personnel.** |

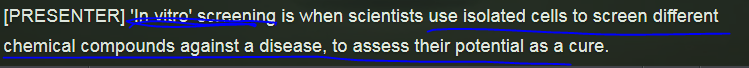
# Part 1) Develop a new drug=>then hit the medical industry



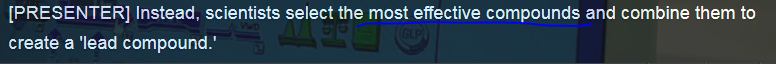
## Phase: ‘in vitro’ screening

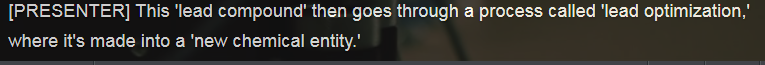
// in vitro /ɪn ˈviːtrəʊ/ [ADJ](javascript:;)In vitro fertilization is a method of helping a woman to have a baby in which an egg is removed from one of her ovaries, fertilized outside her body, and then replaced in her womb. 在试管中的; 体外的







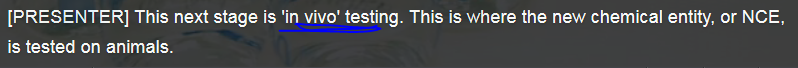




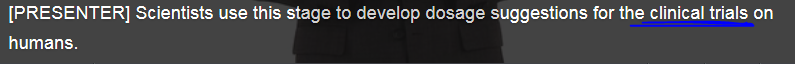


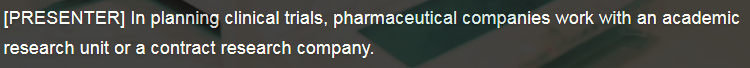


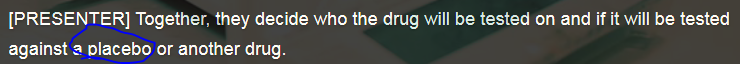
## Phase: clinical trial临床试验 – ‘in vivo’ testing



// in vivo [in'vi:vəu, -'vai-] [生物] 在活的有机体内 (of biological processes or experiments) occurring or carried out in the living organism (生物过程或实验)生物体内的; 在活的有机体中 (e.g. animal, human) **[ in vivo testing (在动物/人类的身体上进行的）活体测试]**



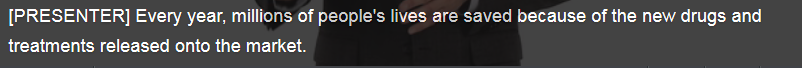




// [plə'siːbəʊ] placebo 安慰剂

|  |  |
| --- | --- |
| Phase1 | //volunteers are “in vivo  [生物] 在活的有机体内” |
| Phase 2 |  |
| Phase 3 | //people are “in vivo  [生物] 在活的有机体内” |
| Phase 4 |  |

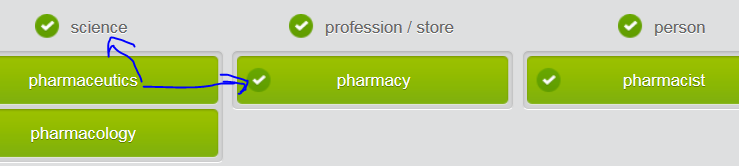




# Part 2)Describe the efficacy of a medicine 药的效力

## Pharmacy terminology – pharmaceutical jargons

|  |  |
| --- | --- |
| adj. 制药（学）的 n. 药物 | pharmaceutical [,fɑ:mə'sju:tikəl] n. drug or medicine that is prepared or dispensed 配发 (药); 配售 (药) in pharmacies and used in medical treatment //配发 (药); 配售 (药)dispense medicine: When a pharmacist 药剂师 dispenses medicine, he or she prepares it, and gives or sells it to the patient or customer. 配发 (药); 配售 (药) |
| 药剂师 | ['fɑːməsɪst] pharmacist n. 药剂师A pharmacist is a person who is qualified to prepare, dispense medicines分发药, and sell medicines and give professional advice on their use药剂师  e.g. Ask your **general practitioner (GP家庭医生)** and pharmacist for advice.  向你的 药剂师 征询意见吧。  [词条图片](javascript:;) |
|  | pharmacy /ˈfɑːməsɪ/  = pharmaceutics /ˌfɑːməˈsjuːtɪks/ →same as [pharmacy](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=pharmacy)   1. [N-COUNT](javascript:;)A pharmacy is a shop or a department in a shop where medicines are sold or given out. 药店; 药房   Pick up the medicine from the pharmacy.   从药房取药。 2. [N-UNCOUNT](javascript:;)Pharmacy is the job or the science of preparing medicines. 制药业; 药剂学 e.g.  He spent four years studying pharmacy. 他花了4年时间学习 药剂学。 |
|  | pharmaceutical /ˌfɑːməˈsjuːtɪkəl/   1. [ADJ](javascript:;)Pharmaceutical means connected with the industrial production of medicines. 制药的  **[一家制药公司a pharmaceutical company ]**   ...a Swiss pharmaceutical company.  …一家瑞士制药公司。 2. [(plural form)](javascript:;)**Pharmaceuticals[ˌfɑ:mə'sju:tɪklz]** are medicines. 药品; 药物 e.g. Antibiotics were of no use, neither were other **pharmaceuticals**.   抗生素没有用，其他药物也没有用。 |
|  | pharmacology /ˌfɑːməˈkɒlədʒɪ/  1. N- Pharmacology is the branch of science relating to drugs and medicines. 药理学; 药物学  2. => pharmacological [,fɑːməkə'lɒdʒɪkəl] adj. 药理学的  **[ 药理效果pharmacological effects]**  e.g. As little as 50 mg of caffeine can produce pharmacological effects.  仅仅50毫克的咖啡因就能产生 药理效果。 |



e.g.

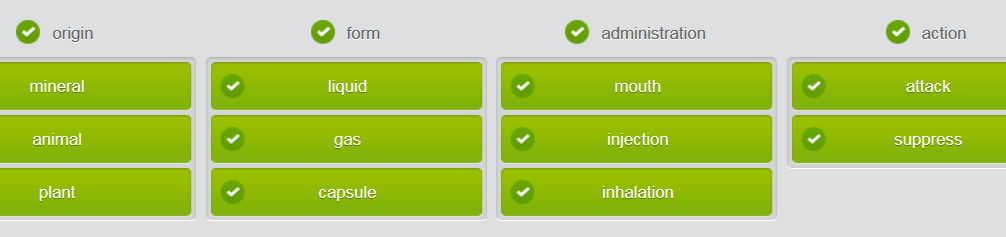
|  |
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| The **pharmaceutical industry医药行业** is involved in the manufacturing, preparation, sale or marketing of drugs for medical treatment.   The profession of **dispensing medicines** to patients is called **pharmacy or pharmacist**, the “**pharmacy**” 药房word that also refers to a store that **sells or dispenses medicines.**  A **pharmacist** is someone licensed to **dispense medicine** and give advice on their use.  The science of drug use and side effects is involved in **pharmacology药理学**, as well as chemistry, sources, production and toxicology.   **Pharmaceutics studies** the preparation of drugs in a usable dosage and form.   Drugs or medicines are referred to as **pharmaceuticals 药物/药品**. |

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| --- |
| Pharmacy today  https://cns2.ef-cdn.com/Juno/11/70/18/v/117018/Pharm2.1.1_header.jpg  ‘Pharmaceuticals’ commonly refers to drugs or medicines.   The pharmaceutical industry encompasses companies and people who are involved in the manufacturing, preparation, sale, marketing or distribution of drugs for medical treatment.  Pharmacology is the science that studies drugs and their effects, including chemistry, sources, production, interactions, toxicology, and use in treating diseases.   Pharmaceutics is a similar science that more specifically studies the preparation and dispensing of drugs prescribed by doctors – for example, how to prepare a drug in a usable dosage (amount and frequency) and form (pill, liquid, etc.).  Pharmacy has two main meanings. It refers to the profession of dispensing medicines to patients, and it also refers to a store that sells or dispenses medicine.   A pharmacist is someone who is licensed to dispense medicine, filling a patient’s  prescription from a doctor. Pharmacists also give advice on how to use a medication, especially information on reactions between multiple medications. They are trained in pharmacology, interactions, medicine monitoring, pharmaceutics, pharmacy law, physiology, anatomy and biochemistry.   Pharmacists work in the pharmaceutical industry and in universities, hospitals, medical offices and pharmacies. |

## Drug groups and classifications

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| --- |
| **Drug classification**  Drugs are used to prevent and cure diseases and disorders. They also can help diagnose a patient’s condition to find out what is causing an illness. Some drugs are used to extend the lives of people with incurable conditions.  However, the word ‘drug’ also can refer to narcotics or hallucinogens, usually illegal, which affect the central nervous system and can cause changes in behavior and, consequently, addiction.  Drugs used specifically in medical treatment are called medications. Medications are divided into two main groups – prescription medications, which must be prescribed by a doctor, and over-the-counter (OTC) medications, which are available in pharmacies and stores without a prescription.   Medical drugs can also be classified in the following ways:  1. whether they come from plant, mineral or animal sources  2. whether they are in tablet, capsule, liquid or gas form  3. whether they are administered – delivered to or taken by the patient – by mouth, injection, inhalation (breathing in) or directly to the skin  4. how they act against diseases or disorders – for example, drugs that attack specific disease-causing organisms vs. drugs that stimulate or depress normal cell activity  The most common way to categorize a drug is by its effect on a particular area of the body or a particular condition.   In the U.S., drugs are identified by three different names. The chemical name describes the exact structure of the drug; the generic name is the official medical name assigned by the United States Adopted Name Council; and the brand or trade name is given by the manufacturer that sells the drug. A pharmaceutical company that holds a patent on a drug has exclusive rights to make and sell the drug, and it will be available under one brand name only. When a patent expires, other companies may manufacture the drug and sell it under a generic name or give it a new brand name. |

Put the words into the correct group according to whether they refer to a drug's origin, form(药品的形式（液体/气体/胶囊）, method of being administered or the action it has.



|  |  |
| --- | --- |
| Brand name of the medicine |  |
| Generic name of the medicine |  |
| Chemical name of the medicine |  |

Fill in the gaps with the words below. Use the text to help you.

diagnose  -  conditions  -  generic  -  effect  -  prescription  -  administered  -  sources  -  brand

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| --- |
| Drugs can be used to diagnose a condition - to find out the cause of an illness. They also can be used to extend the lives of people with incurable conditions .   Some drugs are over-the-counter (OTC) medications - available in pharmacies and stores without a prescription .   Drugs can be classified by their sources - plant, mineral or animal. They can be classified by whether they are dispensed in tablet, capsule or other form.   Another way to categorize drugs is by whether they are administered by mouth, injection, inhalation or directly to the skin.   The most common way to categorize a drug is by its effect on a particular area of the body or a particular condition.   In the U.S., a drug's name describes the exact structure of the drug. The drug's brand name is given by the manufacturer. The drug's generic name is officially assigned by the United States Adopted Name Council. |

## Advices on a drug

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| **MELOPREPPAN** Important information about this drug  **What is Melopreppan?** Melopreppan is an **antidepressant**. It is used to treat depression and anxiety.  **How should this medication be used?** Melopreppan comes as a tablet, taken by mouth. It is usually taken once a day. Melopreppan must be taken with food. Continue to take the prescribed dosage even if you feel well, unless instructed otherwise by your doctor.  **Side effects** Melopreppan has been found to be a generally safe drug, although there are some side effects associated with taking the drug. Melopreppan may cause thoughts of suicide in patients during the first 12 weeks of taking the drug, especially for patients under 24 years of age. Therefore, patients taking Melopreppan should be consistently monitored by their doctors during the initial period of taking their medicine. Melopreppan may also result in increased mania or hypomania in patients with a history of mania or seizure disorder.  Taking Melopreppan can cause mild nausea, insomnia and dry mouth in some patients.  Due to these side effects – for example, if the insomnia is so severe that the patient cannot sleep at all – Melopreppan dosage should be carefully adjusted to the patient’s comfort level.  **General precautions**  Patients shouldn’t take Melopreppan in combination with other antidepressants. Because Melopreppan may cause dizziness, patients should use caution when driving vehicles and operating heavy machinery. Patients shouldn’t drink alcohol while taking Melopreppan. |



## Describing the effects of a new drug

You've prescribed Melopreppan to a patient – a 44-year-old woman called Joanne who is experiencing depression. You want to try her on it and then monitor the situation. She is asking you some questions. Choose the correct and appropriate answer each time. Use the notes to help you.

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| Joanne G. Brown Female, 44  Medical information:  experiencing depression and anxiety  not on any other medications  no history of previous mental illness   Side effects to discuss:   Nausea, insomnia, dry mouth, dizziness  Warn patient:  to take Melopreppan with food not to take any other antidepressants with Melopreppan not to drink alcohol with Melopreppan  to be careful when driving or operating heavy machinery |

# Part 3)Vaccines

Vaccinations travel advice poster. Read the pamphlet on travel vaccinations.

Fill the gaps with the words below.

liver  -  vaccines  -  infection  -  symptoms  -  immunization  -  boosters  -  toxins  -  respiratory  -  contaminated  -  chronic

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Advisory: traveling abroad | | https://cns2.ef-cdn.com/Juno/11/70/17/v/117017/Pharm3.1.1_header.jpg | | **Diphtheria**  Diphtheria is an acute, toxin-producing infection caused by the bacteria Corynebacterium diphtheria. It is spread through direct, person-to-person contact and primarily affects the mucous membranes of the respiratory tract. Infected patients commonly present with sore throat, fever and thick, dark membranes on the throat. Over time, the toxins can spread through the bloodstream to other organs. In the early 1900s, diphtheria was the leading cause of deaths, particularly among children. Standard immunization begins at childhood with multiple doses of the diphtheria toxoid (as a combination of pediatric DTP, diphtheria and tetanus toxoids and pertussis vaccine), followed by adult boosters every 10 years. Although cases of diphtheria are rare in most parts of the world,  patients traveling abroad should ensure they are protected with a current booster, especially when traveling where diphtheria has been reported or immunizations are not routine.  **Hepatitis A**  The word hepatitis means inflammation of the liver. Hepatitis A (HAV) is transmitted from person to person and through food or drink that has been contaminated with the stool of someone with hepatitis A infection. Therefore, the disease occurs more frequently in places with poor sanitation, contaminated water and infected food handlers. Symptoms usually present suddenly – fever, physical discomfort, loss of appetite and nausea, followed by yellow discoloration of skin and eyes. Some people may not show any signs of HAV, and older people are more likely to show symptoms than children. Because hepatitis A produces no chronic conditions, infected patients can fully recover. Recommended vaccinations vary according to the patient’s age and risk level. People traveling in high-risk regions are advised to get at least minimal immunization.  **Hepatitis B**  The hepatitis B virus (HBV) is the most common, serious liver infection in the world. It is spread by contact with an infected person’s blood or body fluids and can lead to severe liver damage, cancer or death. Half of all people infected with hepatitis B virus have no symptoms, but symptoms that do present often resemble those of the flu. Infants should be routinely vaccinated, but older children and adults can be immunized against HBV after a series of three injections. Travelers should consider hepatitis B vaccination if they are planning extended stays in rural areas, expect daily physical contact with local people, or in some other way may be at higher risk.  A combination hepatitis A/hepatitis B vaccine is available, but three doses are required with an interval of at least one month.   **Influenza**  Influenza, or 'flu,' is a highly infectious, respiratory virus that can be mild to severe, and at times it can lead to death. It has been described as the last great ‘uncontrolled’ human plague. Vaccines are formulated annually because of changing virus strains, and they contain viruses from two type A strains and one type B strain. The flu virus can be spread to others up to about six feet away, mainly through coughing, sneezing or talking. People might also ‘catch’ the flu by touching a surface or object that has the virus on it and then touching their own mouths or noses. Symptoms include fever or chills, cough, sore throat, runny or stuffy nose, body aches and fatigue. Vomiting and diarrhea are more common in children than adults. An annual flu shot is recommended, especially for those at higher risk of complications – children under 5, adults older than 65, pregnant women and people with chronic conditions or weak immune systems. Flu shots are available before the typical onset of flu season, in the fall. People traveling abroad should get the latest flu vaccine at least two weeks before departure.  **Measles, Mumps and Rubella**  These are serious, acute ‘childhood’ viruses spread from person to person through the air. Measles and mumps are caused by single-stranded RNA paramyxoviruses; rubella is an enveloped RNA togavirus.  A recent measles resurgence involved unvaccinated preschool-age children or inadequately vaccinated young adults. Measles varies from minor symptoms such as skin rash, cough, runny nose, eye irritation or mild fever to serious symptoms such as ear infection, pneumonia, seizures, permanent brain damage or death. Mumps varies from fever, headache and swollen glands to hearing loss and meningitis.  The rubella virus, also called German measles, causes skin rash, mild fever and joint pain. However, the main goal of rubella vaccination programs in the U.S. is to prevent congenital rubella syndrome (CRS) – serious birth defects or miscarriages – in pregnant women.  Major authorities recommend a combined measles, mumps and rubella (MMR) vaccination, at two intervals during childhood. Patients who haven’t been vaccinated against these three viruses should do so before traveling abroad. | |

## “Method of administration” and doses

[Method of Administration](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=Method%20of%20Administration&lang=en) :

1. pharmaceuticals药物的使用方法 e.g.口服／喷／静脉注射;

2. 管理方法;

3. 政府当局的方法

Group the phrases according to whether they advise on the dosage (amount and frequency) **or the method of administration**.

* Take two grams daily in divided doses.
* Take one ampicillin capsule every six hours.
* Benzylpenicillin is given by intramuscular injection.
* Take a five hundred milligram dose twice daily.
* By mouth, one gram, thirty minutes before food.
* By slow intravenous injection or infusion.

|  |  |
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| [Method of Administration](file:///C:\Users\IBM_ADMIN\AppData\Local\Youdao\Dict\Application\7.5.2.0\resultui\dict\result.html?keyword=Method%20of%20Administration&lang=en) | pharmaceuticals药物/药品的使用方法 e.g.口服／吸入药剂(比如哮喘需要的喷雾)  ／静脉注射 |
| （药）口服 | [ by mouth（药）口服] |
| 静脉注射 | **[静脉注射intravenous injection (IV) ] = intra + vein静脉血管**   [‚ɪntrə'viːnəs]  [only before noun,仅用于名词前] through or into a **vein**静脉血管　(= tube in the body taking blood back to the heart ) , intravenously adv  **[ intravenous drug users 使用静脉注射的吸毒者 ]** |
| 肌肉注射 | **[肌肉注射 an intramuscular injection = IM] = intra + muscular**  [,ɪntrə'mʌskjʊlə] intramuscular  肌肉的；肌肉内的: within a muscle 肌肉内的 (Abbreviation (esp of an injection) IM, i.m) |
| 静脉注射；静脉注射用药物 | [ɪn'fjuːʒən]  infusion   * + [C,U] the act of putting a new feeling or quality into something 〔新感觉或品质的〕注入，灌输 [+ of] e.g. Further education badly needs the infusion of more resources. 进修教育非常需要更多资源的注入。   + **[ intravenous[‚ɪntrə'viːnəs] infusion]** medical the act of putting medicine slowly into someone’s body, or the medicine itself 注射；注射用药物 e.g. intravenous infusions of cardiac drugs 心脏病药物的静脉注射   + [C] a drink made with herbs in hot water that is usually taken as a medicine 草药泡剂；用香草泡的茶(当做药引用)     V)  [ɪn'fjuːz]  1. [T] formal to fill something or someone with a particular feeling or quality  使充满〔某种感觉〕；向…灌输〔某一品质〕  be infused with sth  •Her books are infused with humour and wisdom. 她的书充满了幽默和智慧。  infuse sth into sth  •These new designers are infusing fresh interest into the New York fashion scene. 这些新设计师把有创意的元素带入了纽约时装界。  2.[I,T] if you infuse tea or herbs or if they infuse, you leave them in very hot water while their taste passes into the water〔用热水〕泡(茶或香草) (当做药引用) |
| 吸入药剂(比如哮喘需要的喷雾) | [,ɪn**hə**'leʃən] inhalation  n. 吸入；吸入药剂(比如哮喘需要的喷雾)   * [N-VAR](javascript:;)Inhalation is the process or act of breathing in, taking air and sometimes other substances into your lungs. 吸气 e.g.  They were taken to the hospital suffering from **smoke inhalation.**   他们因吸入浓烟被送进医院 e.g  Take several **deep inhalations**.   做几次深的吸气。 * [N-COUNT](javascript:;)An inhalation is a treatment for colds and other illnesses in which you dissolve substances in hot water and breathe in the vapour. 吸入药剂(比如哮喘需要的喷雾) [词条图片](javascript:;)   e.g. Inhalations吸入药剂can soothe缓解 and control the cough, esp effective for persons who suffer from **asthma ['æsmə]哮喘（病）** |
| n. [医] 预防；预防法 | [,prɒfɪ'læksɪs] prophylaxis  n. [医] 疾病预防；预防法 Prophylaxis is a treatment for preventing disease; is the prevention of disease or control of its possible spread  复数 prophylaxes: |

## Types of antibiotics

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| --- | --- | --- |
| |  | | --- | | Since **Alexander Fleming**'s discovery of**盘尼西林（青霉素）penicillin /ˌpɛnɪˈsɪlɪn/** in 1928, a variety of **antibiotics** has been developed to treat infection nowadays.  Antibiotics are a group of organic compounds that kill or inhibit the growth of **microorganisms** that cause **bacterial and fungal infections ['fʌŋg(ə)l]真菌的**. There is a growing concern today that many disease-causing organisms have acquired **antibiotic resistance**, largely due to misuse and overuse of antibiotics. **Antibiotic resistance** can lead to **life-threatening situations生命威胁**, especially when infection occurs in a person who already has **a chronic illness** or serious injury. Different people also exhibit/present different responses to antibiotics, and **adverse reactions** can be very serious. It is therefore vital that **pharmacists药剂师**know how to understand **prescription information**.  **Ampicillin** /ˌæmpɪˈsɪlɪn/ [N](javascript:;)a semisynthetic penicillin used to treat various infections 氨比西林   * Indications: urinary tract infections, otitis media, chronic bronchitis, invasive salmonellosis, gonorrhea * **Contraindications**: none **//禁忌症(说明药品不适用于某些人服用，禁止服用)** * Side effects: See Benzylpenicillin; also erythematous rashes in glandular fever and chronic lymphatic leukemia; reduce dose in renal impairment. * **Method of administration** and dose: **//pharmaceuticals药物的使用方法,e.g口服／静脉注射／喷雾吸** * **By mouth（药）口服**, 0.25-1g every 6 hours, at least 30 minutes before food. * **By intramuscular injection肌肉注射 or intravenous injection or infusion,** 500mg every 4-6 hours; higher doses in meningitis. CHILD, any route, half adult dose.   **Benzylpenicillin (Penicillin G)**   * Indications: tonsillitis, otitis media, erysipelas, streptococcal endocarditis, meningococcal and pneumococcal meningitis, prophylaxis in limb amputation * Contraindications: penicillin hypersensitivity　**//禁忌症(说明药品不适用于某些人服用，禁止服用)** * Side effects: sensitivity reactions including urticaria, fever, joint pains; angioedema; anaphylactic shock in hypersensitive patients; diarrhea after administration by mouth. * **Method of administration** and dose: **//pharmaceuticals药物的使用方法,e.g口服／静脉注射／喷雾吸：** * **By intramuscular injection**, 300-600mg 2-4 times daily. CHILD up to 12 years, 10-20mg/kg daily. NEONATE, 30mg/kg daily. * Prophylaxis[,prɒfɪ'læksɪs] in dental procedures and limb amputation（截肢） //[,prɒfɪ'læksɪs] prophylaxis is a treatment for preventing disease; is the prevention of disease or control of its possible spread [医] 疾病预防；预防法   **Erythromycin**   * Indications: alternative to penicillin in hypersensitive patients; sinusitis, diphtheria and whooping cough prophylaxis; Legionnaires' disease; chronic prostatitis * Contraindications: estolate contraindicated in liver disease **//禁忌症(说明药品不适用于某些人服用，禁止服用)** * Side effects: nausea, vomiting, diarrhea after large doses * **Method of administration** and dose: **//pharmaceuticals药物的使用方法,e.g口服／静脉注射／喷雾吸** * **By mouth,** 250-500mg every 6 hours. CHILD, 125-250mg every 6 hours. Syphilis, 20g in divided doses over 10 days. * **By slow intravenous (IV) injection or infusion**, 2g daily in divided doses, increased to 4g in severe infections. CHILD, 30-50mg/kg daily in divided doses.   **Tetracycline**   * Indications: exacerbations of chronic bronchitis; infections due to brucella, chlamydia, mycoplasma and rickettsia; severe acne vulgaris * Contraindications: renal failure, pregnancy, children under 12 years of age　**//禁忌症(说明药品不适用于某些人服用，禁止服用)** * Side effects: nausea, vomiting, diarrhea; super infection with resistant organisms; rarely allergic reactions * **Method of administration** and dose: **//pharmaceuticals药物的使用方法,e.g口服／静脉注射／喷雾吸** * **By mouth**, 250-500mg every 6 hours. * **By intramuscular injection**, 100mg every 8-12 hours, or every 4-6 hours in severe infections. * **By intravenous infusion,** 500mg every 12 hours; maximum 2g daily. | |  | |

## Giving vaccination advice

Listen to a customer asking advice from a pharmacist['fɑːməsɪst]药剂师.Fill in the gaps with the phrases used to **give travel and vaccination advice**.

might want to ask about  -  make sure you get  -  have to take precautions against  -  you'd better take a suitable  -  a significant risk  -  always good to have  -  make sure you pack  -  you'll need shots for

|  |
| --- |
| 1. Well, the first thing is to **make sure you get all the necessary vaccinations well in advance.** For Kenya, you'll need shots for typhoid, hepatitis A, diphtheria and yellow fever.   2. **There’s a significant risk of** malaria in sub-Saharan Africa, so you have to **take precautions against** mosquito bites. There are various medicines to prevent malaria, but choosing the right one depends on your personal risk level.   3. **It's always good to have something handy to relieve a** headache, diarrhea or an insect bite, so make sure you pack those items, too.   4. **Now, do you have enough s**un protection? The African sun can be quite harsh on your skin, so you'd better take a suitable sun block/sun screen.   5. Even minor ailments can cause problems if you're a long way from a doctor or you don't speak the local language. When you check with your doctor about getting your vaccinations, **you might want to ask about basic remedies for** ailments such as headaches, colds, sunburn and diarrhea.  Make sure you get all the necessary **vaccinations** well in advance.  For Kenya, you'll need shots for **typhoid** and **hepatitis** A.  There's a significant risk of **malaria** in sub-Saharan Africa.  You have to take precautions against **mosquito bites**.  It's always good to have something **handy** to relieve a headache.  You'd better take a suitable **sun block/sun screen. 防晒霜** |

## Advice on vaccinations during his vacation

You’re a doctor. A patient going to Botswana in two months’ time has asked for advice on vaccinations. Listen and answer his questions.

**John Barker – notes on Botswana trip**  
  
**Vaccinations**  
**Hepatitis A:** Recommended for all travelers. Should be administered at least two weeks before departure.    
**Hepatitis B:** Recommended for all travelers who haven’t been previously vaccinated. Vaccination given as three shots with minimum one-month intervals. Can be combined with hepatitis A vaccine.   
**Typhoid:** Vaccine recommended for all travelers.  
**Yellow fever:** Required for all travelers arriving from a yellow fever-infected area in Africa or the Americas.  
**Tetanus-diphtheria:** Recommend for all travelers who haven’t been vaccinated in the past 10 years.  
  
**Other medications**  
**Malaria:** Pills should be taken for all travel to the northern part of the country. (Mosquito repellant with DEET also advised.)  
  
**Basic remedies for:** Diarrhea, sunburn, colds and headaches.

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| You call John Barker to remind him of his appointment next week to get his immunizations for his trip to Botswana. Use the notes to leave a detailed message on his answering machine. Be sure to include in the message all six items in your notes.  To remind patient John Barker:  1.    Appointment 10:30 a.m. Monday 2.    Vaccines confirmed: hepatitis A, hepatitis B, typhoid, yellow fever 3.    Records show DTP booster two years ago; don’t need tetanus-diphtheria 4.    Pick up prescription for anti-malaria generic Tovaquen; 250mg, twice daily with food 5.    Will provide extra inhaler for trip 6.    Don’t forget basic OTC remedies |

# Part4) Pharmaceutical industry制药行业

## Drug stipulation/regulation controlled by FDA

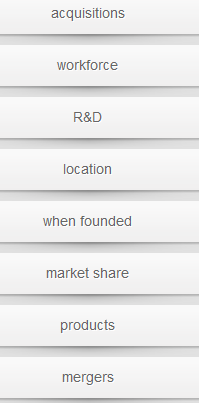
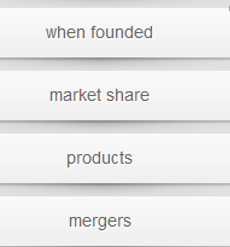
## Summarize FDA’s responsibilities

//[V-T](javascript:;)If you **stipulate/ˈstɪpjʊˌleɪt/** a condition or stipulate that something must be done, you say clearly that it must be done. 规定xxx, 对xxx 有明确的规定和要求

|  |
| --- |
| **Drug regulation**  Drugs can produce harmful effects when **manufactured** or taken improperly, therefore **drug development and availability** is under strict government control in most countries.  The **Food and Drug Administration (FDA)** is the government agency responsible for **regulating/stipulating** food and medical treatments in the United States. Its responsibilities include ensuring that drugs and**治疗仪 therapeutic devices[,θerə'pjuːtɪk]** are safe and effective for their intended uses and that labels and packaging of products are truthful and informative.  ## proprietary drugs(OTC) V.S. ethical drugs**凭医生处方出售的药品，处方药**  In the United States, the FDA **determines** how drugs are produced and how they are sold. Drugs that can be sold **over the counter (OTC),** without a prescription处方 from a physician医师/内科医师, are called **proprietary[prə'praɪət(ə)rɪ] drugs**[**专卖药**](javascript:;)**.** They are considered safe for unsupervised use by the general public. **By comparison**, the drugs that must be **prescribed by physicians医师/内科医师** and **dispensed配售 (药) by pharmacists药剂师** are known as **ethical drugs.** The key is that their use is monitored closely by medical personnel.  Before 1900, any individual could sell a drug without providing medical proof of the **therapeutic [,θerə'pjuːtɪk] benefits**. The first law passed to change this was the Pure Food and Drug Act of 1906, which required drug manufacturers to state the content, strength and purity of each drug they produced. Legislation passed over the years - such as the Food, Drug, and Cosmetic Act of 1938 - **stipulated that(对xxx 有明确的规定和要求)** new drugs be safe for humans, required manufacturers to prove **the efficacy疗效 of new drugs**, and established rules for manufacturing and prescribing habit-forming drugs, particularly those with a high abuse potential Drug manufacturers are required to submit samples of new drugs to FDA laboratories for testing, and their labelling must also be approved before the products are sold.  //[V-T](javascript:;)If you **stipulate/ˈstɪpjʊˌleɪt/** a condition or stipulate that something must be done, you say clearly that it must be done. 规定xxx, 对xxx 有明确的规定和要求  The U.S. government and its regulatory agencies continually monitor the development and use of all drugs sold in the United States to ensure that the American public has access only to drugs that are safe and effective. For example, the FDA recently introduced legislation requiring warning labels on all **over-the-counter (OTC非处方药=proprietary[prə'praɪət(ə)rɪ] drugs**[**专卖药**](javascript:;)**)** medication after research indicated that the non-aspirin pain reliever acetaminophen can cause liver damage when taken in high doses in combination with large quantities of alcohol. |

## Describing a pharmaceutical company

If you were going to research a major **pharmaceutical company**, which of the following areas would you consider to be the most important?

 organizational chart of that company

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| --- |
| **GlaxoSmithKline**  GlaxoSmithKline is a leading company focusing on research. The company was formed in 2000 through the **merger** of Glaxo Wellcome and SmithKline Beecham. Its **headquarters** are in the U.K. and its **operations** are based in the U.S. It employs more than 90,000 people worldwide and has offices in nearly every country of the world. This **pharmaceutical giant** holds an estimated 7 percent of the world's **pharmaceutical market.**  Concentrating on four **therapeutic areas** (anti-infectives, central nervous system, respiratory and gastro-metabolic), among its most prominent products are Paxil, for depression, and Advair, for asthma. GSK is a leader in the vaccine area and has a growing portfolio of oncology products, including Hycamtin and Zofran for treating cancer. The company’s R&D budget is about $7 billion. |

## Summarizing the pharmaceutical industry制药行业

You work in the **pharmaceutical industry**. Your boss has asked you to summarize an article for him so that he can better talk in English about the major players in the industry.

|  |
| --- |
| **Key industry players**  Most of the **pharmaceutical industry** is concentrated in developed regions – the U.S., Europe and Japan. The market is characterized by complex national regulations and consolidation among the largest international groups.  An important reason for these mergers is the need for economies of scale, as well as the increasing amount of money dedicated to research and development (R&D).   **GlaxoSmithKline** GlaxoSmithKline is a leading company focusing on research. The company was formed in 2000 through the merger of Glaxo Wellcome and SmithKline Beecham. Their headquarters are in the U.K., and their operations are based in the U.S. It employs more than 90,000 people worldwide and has offices in nearly every country of the world. This pharmaceutical giant holds an estimated 7 percent of the world's pharmaceutical market.  Concentrating on four therapeutic areas (anti-infectives, central nervous system, respiratory and gastro-metabolic), among its most prominent products are Paxil, for depression, and Advair, for asthma. GSK is a leader in the vaccine area and has a growing portfolio of oncology products, including Hycamtin and Zofran for treating cancer. The company’s R&D budget is about $7 billion.   **Pfizer** Pfizer is one of the world's largest consumer healthcare and pharmaceutical companies, having acquired Warner-Lambert in the year 2000. The company has three business segments: human health, animal health and consumer healthcare. The consumer business includes many of the world's best-known brands, among them Halls, Tetra, Benadryl, Sudafed, Listerine, Desitin, Schick, Visine, Bengay, Lubriderm and Zantac.   **Merck & Co.** Another leading company is Merck, a global, research-driven pharmaceutical company working toward the discovery, development, manufacturing and marketing of a broad range of human and animal health products – directly and through its joint ventures. One recent partnership was initiated with another drug giant, Sanofi-Aventis SA, to become the world's largest seller of animal medications. Merck also provides group prescription drug benefit services through Merck-Medco Managed Care LLC (Merck-Medco). |

## Describe the pharmaceutical industry制药行业

