

# آزمون کارشناسی ارشد وزارت بهداشت سال ۱۳۸۳

فایل سوالات

EMAD JAFARI

 emadjafari.com

 0939 759 0359

 emadjafari\_english

 emadjafari\_english

## Part One: Reading Comprehension

### Directions

Read the following passages carefully. Each one is followed by several questions about it. Choose the one best answer, (a), (b), (c), or (d), to each question. Then on your answer sheet, fill in the space that corresponds to the letter of the answer you have chosen. Base your answer to each question on the information given in the passage only.

### Passage One

Much research has been carried out in recent years into sleep. We know a great deal about the mechanics of sleep and we are beginning to know about the biochemical changes involved. However, we are still a long way from finding out answers to such questions as how much sleep a person needs.

While the physiological bases of sleep remain very much a matter for conjecture, we do nevertheless have considerable evidence on how much sleep people do in fact obtain. We still need to know more about the kinds of effects that sleep deprivation causes. In spite of the considerable effort devoted to investigating why we sleep there is still disagreement in this area.

The fact that sleep deprivation causes numerous harmful effects suggests that the body requires sleep to restore itself. However, more research is needed to determine whether this is so or whether sleep is the result of adaptation to the environment. There is also the possibility that two alternatives may not be incompatible.

**1. Of the different dimensions of sleep, researchers have found more information on the .....**

- a) physiological bases of sleep
- b) amount of sleep people need
- c) functional of sleep
- d) biochemical changes during sleep

**2. In this text, writer .....**

- a) calls for further research on sleep.
- b) compares and contrasts different theories of sleep
- c) enumerates the shortcomings of the research done
- d) presents new insights while standing against past studies

**3. It is said that there is ..... Over why we sleep.**

- a) controversy
- b) consensus
- c) have evidence
- d) no reference

**4. Regarding the effects of sleep deprivation the writer .....**

- a) favors the restoration theory
- b) defends the adaptation theory
- c) tends to reject both theories
- d) argues that both theories may come true

**5. The text implies that .....**

- a) in near future many mysteries over sleep will be detected
- b) it is very improbable to find out the true nature of sleep
- c) despite much research on sleep, there are many unresolved questions
- d) scientists should ignore their disagreement to be able to reach a new solution

### Passage Two

Although the ideology linking sport and health is very widespread, the view that sport is good for health has only recently come to be applied to women as well as men, for, during much of the nineteenth century, women were actively discouraged from taking part in vigorous exercise, which was often seen as damaging to their health. Patricia Vertinsky, in describing the situation in late nineteenth-century Britain, writes: "The widespread notion that women were chronically weak and had only finite mental and physical energy because of menstruation had a strong effect upon the medical profession's and consequently on public's attitude towards exercise and sport."

She argues that, "Not infrequently, medically defined notions of optimal female health, have justified the practice of viewing female physiological functions as requiring prescribed and/ or delimited levels of physical activity and restricted sporting opportunities."

**6. The nineteenth century women .....**

- a) had a participation record like that of today
- b) lacked the physical strength required for sports
- c) were intentionally prevented from participating in sports
- d) were actively involved in various sports

**7. Menstruation was referred to as a /an ..... women's participation in sports.**

- a) physiological function justifying
- b) sex-linked drawback discouraging
- c) beneficial factor facilitating
- d) psychological feature enhancing

**8. The view discouraging women's involvement in sports had an impact on .....**

- a) the women in the medical profession
- b) the public's attitude toward medical profession
- c) certain women in the society
- d) the medical profession and public

**9. The last sentence mainly focuses on ..... women's participation in sports.**

- a) medical profession's role in providing opportunities for
- b) proof of better physiological functions due to
- c) optimal female health virtually obtained following
- d) medical profession's role legitimizing restrictions on

**Passage Three**

For decades the common belief among psychologists was that memory was a fixed quantity; an exceptional memory, or a poor one, was something with which a person was born.

This point of view has come under attack in recent years; expert memory is no longer universally considered the exclusive gift of the genius, or the abnormal. "People with astonishing memory for pictures, musical scores, chess positions, business transactions, dramatic scripts, or faces are by no means unique," wrote Cornell psychologist Ulric Neisser in *Memory Observed* (1981). "They may not even be very rare." Some university researchers including Polson and Ericsson, go a step further than Neisser. They believe that there are no physiological differences at all between the memory of Shereshevskii or Toscanini and that of the average person. The only real difference, they believe, is that Toscanini trained his memory, exercised it regularly, and wanted to improve it.

**10. According to the text, in the past, psychologists commonly believed that a unique memory was**

.....

- a) acquired
- b) inherited
- c) a sign of achievement
- d) a common attribute

**11. Ulric Neisser ..... the idea that good memory is an exception.**

- a) clearly opposes
- b) ironically denies
- c) eagerly adopts
- d) cautiously advocates

**12. According to such researchers as Polson and Ericsson, ..... account for people's high levels of memory.**

- a) physiological differences
- b) regularly mental trainings
- c) routinely performed physical exercises
- d) unique features of individuals

**13. Shershevskii and Toscanini are mentioned as examples of .....**

- a) the common people with ordinary memory
- b) those who were born with unique memories
- c) those exploiting their memories quite effectively
- d) the pioneers advocating memory training

**14. The message conveyed in this text .....**

- a) supports the traditional view on memories
- b) integrates the new and the previous theories
- c) favors the theory supported by new psychologists
- d) remains neutral to the proposed theories

#### Passage Four

While vaccines are generally both effective and safe, no vaccine is totally safe for all recipients. Vaccination may sometimes cause certain mild side-effects: local reaction, slight fever and other systemic symptoms may develop as part of the normal immune response. In addition, certain components of the vaccine (e.g. aluminum adjuvant, antibiotics or preservatives) occasionally cause reactions. A successful vaccine reduces these reactions to a minimum while inducing maximum immunity. Serious reactions are rare. Health workers who administer vaccines have an obligation to inform recipients of known adverse reactions and the likelihood of their occurrence.

A known contraindication should be clearly marked on a traveler's vaccination card, so that the vaccine may be avoided in future. In exceptional circumstances, the medical adviser may consider the risk of a particular disease to be greater than the theoretical risk of administering the vaccine and will advise vaccination.

**15. In the passage it is implied that .....**

- a) the necessity of vaccination may go beyond its adverse effects
- b) adverse reactions are rare when vaccines are carefully administered
- c) components of vaccines are certainly the cause of adverse effects
- d) health workers usually avoid telling the recipients about adverse reactions of vaccine

**16. A traveler's vaccination card should be marked .....**

- a) in order to avoid complications
- b) for a known contraindication
- c) in exceptional circumstances
- c) by a medical adviser

**17. According to the passage, vaccines .....**

- a) sometimes induce serious complications
- b) are the most convenient way to prevent illness
- c) normally result in immunity despite some mild reactions
- d) have to be tested for any reaction and then be administered

**18. It is stated that the possibility of any vaccine reaction .....**

- a) should be notified to the recipient
- b) can be controlled by modifying its components
- c) has to be reported to health workers
- d) will result in the occurrence of further complications

**Passage Five**

“It’s clear that the brain benefits from exercise”, says neuroscientist William Greenough of the University of Illinois. His studies suggest we can benefit in two ways. Aerobic exercise fuels the brain with more nutrients, and skill-based exercise increases the number of synapses, or connections, which, some scientists theorize, makes brain better able to process information.

Numerous studies show that children who engage in regular physical activity do better in school than their sedentary classmates. The improvements was thought to be from increased self-confidence and concentration, but some scientists now believe the connection is physiological. Learning a new dance step may boost the brain in the same way that learning a language can. If the dance is aerobic, then the benefits double. Other studies have shown that sedentary adults, aged 63 to 82, improved their reaction times after 10-week water aerobics course. Pierce J. Howard, an organizational psychologist, says new research suggests that aerobic exercise increases the amount of certain brain chemicals that stimulate the growth of nerve cells. It’s believed that young people stand to gain the most improvement in brain function from exercise.

**19. Based on the new findings of neuroscience, a dance- like activity .....**

- a) uses up the student’s knowledge
- b) adds to the student’s knowledge
- c) helps a student gain in confidence
- d) causes positive physiological changes

**20. A brain which has experienced skill – based exercise is claimed to .....**

- a) require a strong memory
- b) theorize more often
- c) grow new connections with others
- d) classify or analyze data more effectively

**21. Reading the passage, we learn that students who exercise regularly prove to be .....**

- a) more successful in their studies
- b) better solely at physical education
- c) less able in their theoretical courses
- d) the same as their sedentary classmates

**22. Changes resulting from regular physical activity, once thought be due to increased self – confidence, are now claimed by some to be of a (n) ..... Nature.**

- a) inappropriate
- b) static
- c) physiological
- d) psychological

**23. A more effective way to boost brain function is claimed to result from .....**

- a) more nutrients
- b) aerobic dancing
- c) traditional exercise
- d) increased concentration

**24. In one study, an about three – month aerobic course in the swimming pool drastically helped .....**

- a) the elderly people
- b) better school activities
- c) organizational psychologists
- d) interactive language learning

25. Concerning the function of the brain, aerobic exercise seems to be most beneficial to the .....

- a) youth
- b) elderly
- c) middle age group
- d) kids



EMAD JAFARI

english for medical students



# عماد جعفری

مدرس زبان علوم پزشکی  
برگزار کننده دوره های  
مختلف زبان علوم پزشکی

 [emadjafari.com](http://emadjafari.com)

 0939 759 0359

 [emadjafari\\_english](https://www.instagram.com/emadjafari_english)

 [emadjafari\\_english](https://www.telegram.com/emadjafari_english)



**Part Two:  
Vocabulary**

**Directions**

The following are incomplete sentences. Below each one four words or phrases marked, (a), (b), (c), or (d). Choose the one word or phrase which best completes the sentence.

**26. Influenza viruses constantly evolve, with rapid changes in their antigenic .....**

- a) principles                      b) features                      c) diagnosis                      d) constraints

**27. Heroin is dangerous because of its addiction .....**

- a) exposure                      b) attraction                      c) potential                      d) confidence

**28. In some Western societies approximately one in five male ..... to acute medical wards are directly or indirectly due to alcohol.**

- a) admissions                      b) receptions                      c) applications                      d) submissions

**29. Violence is an ever-present ..... of working with mentally ill people.**

- a) hazard                      b) profession                      c) provision                      d) reward

**30. Since the pattern of health care in a society is such a(n) ..... part of it, some would argue that as individual doctors we can do nothing about it.**

- a) fragmentary                      b) integral                      c) statistical                      d) truthful

**31. Despite modern medicine, which has received huge ..... of cash, longevity has failed to increase significantly.**

- a) convictions                      b) convulsions                      c) injections                      d) instances

**32. The whole operation takes about half an hour, provided there are no .....**

- a) demonstrations                      b) complications                      c) administrations                      d) implications

**33. Like the appendix, the spleen seems to be ..... because hundreds of people continue to live perfectly well after spleens have been removed.**

- a) conceivable                      b) sustainable                      c) exposable                      d) disposable

**34. A knowledge of the drugs the patient is taking can be ..... to the surgeon if he has to have an operation.**

- a) crucial                      b) negligible                      c) trivial                      d) incredible

**35. Under normal circumstances the patient will be asked to sign a(n) ..... form before any surgical procedure is carried out on him.**

- a) contract                      b) contrast                      c) competence                      d) consent

**36. In some countries, consultations with specialists are not directly available on the public but must be ..... by general practitioners.**

- a) concealed                      b) arranged                      c) condemned                      d) attended

37. Waiting lists vary in length from hospital to hospital and are constantly ..... every day within any one hospital.

- a) readjusted      b) reclaimed      c) recommended      d) reabsorbed

38. The hospital's aim, under normal circumstances, is to keep the surgical staff totally ..... And the beds full.

- a) retired      b) accused      c) replaced      d) occupied

39. The medical team would like to know whether the new medicine would ..... The stress and reduce the anxiety.

- a) maintain      b) preserve      c) detract      d) attenuate

40. Obesity is common wherever there is a/an ..... supply of appetizing foods.

- a) abundant      b) insidious      c) insufficient      d) anomalous



1	c	11	a	21	a	31	c
2	a	12	b	22	c	32	b
3	a	13	c	23	b	33	d
4	d	14	c	24	a	34	a
5	c	15	a	25	a	35	d
6	c	16	b	26	b	36	b
7	b	17	c	27	c	37	a
8	d	18	a	28	a	38	d
9	d	19	d	29	a	39	d
10	b	20	d	30	b	40	a

**Part One:  
Reading Comprehension**

**Directions**

Read the following passages carefully. Each one is followed by several questions about it. Choose the one best answer, (a), (b), (c), or (d), to each question. Then on your answer sheet, fill in the space that corresponds to the letter of the answer you have chosen. Base your answer to each question on the information given in the passage only.

**Passage One**

Bowen therapy also known as Bowen treatment, is a technique that involves gentle but precise soft tissue manipulation. Bowen therapists use their thumb or finger to make subtle rolling maneuvers. Bowen therapy aims to trigger a response from the body rather than to physically alter the body. Only minimal force is thought to be necessary.

In general, Bowen therapy does not aim to fix specific health problems, but rather to help the body reach a more harmonious state in which it can better cure itself. Short-term benefits are said to include a sense of relaxation. Longer-term effects may include better overall wellbeing or improvements in disease states.

Bowen sessions may last from 30 to 90 minutes and are often customized to the individual. Sessions are usually spaced several days apart, and three or four sessions may be recommended initially.

During a Bowen session, practitioners occasionally leave the treatment room with the aim to allow the patient's body to absorb messages that have been transmitted by the practitioner via body work.

Many Bowen practitioners see this approach as being complementary to other medical treatments, such as prescription of drugs or surgery rather than as a replacement for other treatments.

**1. Bowen therapy is based on the premise that .....**

- a) the body could favorably respond to certain types of stimuli
- b) soft tissue manipulation can replace certain drug prescription
- c) tissue stimulation functions more effectively than other therapies
- d) it provides treatments for particular health disorders

**2. Bowen therapy is mainly intended to enable the body to .....**

- manipulate the body tissue softly
- challenge prescribed drugs
- get full recovery from certain illnesses
- achieve a better state of balance

**3. In Bowen therapy an overall improvement is a long-term .....**

- a) session
- b) objective
- c) survey
- d) necessity

**4. Leaving the patient alone is .....**

- a) necessary as a rest for practitioners
- b) one of the drawbacks of the technique
- c) a common practice in the field
- d) to let the patient think about messages

**5. Bowen therapy is supposed to be used ..... other medical treatments.**

- a) instead of
- b) along with
- c) as frequently as
- d) when there is a failure of

**Passage Two**

In most cases microorganisms use our food supply as a source of nutrients for their own growth. This, of course, can result in deterioration of the food. By increasing their numbers, utilizing nutrients, producing enzymatic changes and contributing off-flavors by means of breakdown of a product or synthesis of new compounds they can “spoil” a food. This is a normal consequence of the action of microorganisms, since one of their functions in nature is to convert reduced forms of carbon, nitrogen and sulfur in dead plants and animals to the oxidized forms required by plants, which in turn are consumed by animals. So by simply "doing their thing" in nature they frequently can render our food supply unfit for consumption. To prevent this we minimize the contact between microorganisms and our food (i.e. prevent contamination) and also eliminate microorganisms from our foods or at least adjust conditions of storage to prevent their growth (preservation).

**6. Food deterioration and microorganisms are ..... .**

- a) incompatible
- b) interactive
- c) hazardous to the nature
- d) man-made occurrences

**7. Enzymatic changes in food made by microorganisms are shown to ..... .**

- a) be beneficial
- b) be useful to human diet
- c) threaten our natural resources
- d) adversely affect animals feeding

**8. The word “this” in the last sentence refers to ..... .**

- a) doing their thing in nature
- b) supplying unhealthy food
- c) rendering our food supply unfit
- d) consuming unfit food

**9. It is implied that microorganisms; ..... .**

- a) ought to be eliminated altogether
- b) utilize food as a substrate
- c) are the main cause of mortality
- d) ought to be changed genetically

**10. The writer concludes the paragraph with the ..... .**

- a) way(s) of getting rid of microorganisms
- b) superiority of micro-organic methods
- c) inadequacies of the existing strategies
- d) methods of safeguarding foodstuff

**Passage Three**

The two landmark studies changed the way surgeons treated breast cancer. By the end of the 1980s the less-disfiguring procedure often called a lumpectomy (removal of the tumor) was widely accepted on an equal footing with mastectomy (removal of the breast) for cancer that has not yet spread.

Still breast-saving surgery is not always offered to women who are potential candidates for the operation. The researchers behind the latest findings hope to change that.

The researchers at the European Institute of Oncology in Milan split 701 women into two groups: one got mastectomies, the other got lumpectomies with radiation treatments. In the end, about a quarter of each group died of breast cancer over 20 years.

The American study of 1851 women backed by the government and run at the University of Pittsburgh, also found little survival differences between two similar groups. A third group of women who underwent lumpectomy without radiation also survived as well as others, though they developed recurrent cancer on the same side more often than women who got radiation.

About 90 percent of women with stage one disease - the earliest stage - are reasonable candidate for lumpectomy, according to Morrow. Yet only 68 percent chose it in a 1998 survey by the American College of Surgeons.

**11. It was almost 20 years ago, when a large number of breast surgeons accepted to..... when there was no sign of metastases.**

- a) remove just the tumor
- b) stop practicing mastectomy
- c) cut out the whole breast
- d) cut the larger portion of the breast

**12. An outstanding research in a cancer Institute in Milan showed .....**

- a) lumpectomy to be a safer practice
- b) greater hope for patients undergoing mastectomy
- c) insignificant difference between the two procedures
- d) Europeans to be less successful than American oncologists

**13. The difference found in the study at the University of Pittsburgh supported the .....**

- a) greater effectiveness of mastectomy
- a) greater risk for every case of lumpectomy
- c) finding of the European Institute of Oncology
- d) importance of mastectomy with radiation treatments

**14. The number of patients and surgeons who choose lumpectomy for stage one disease today is shown to be .....**

- a) considerably lower than it should be
- b) much below than that of 20 years ago
- c) unexpectedly increasing regularly
- d) about ninety percent of women with stage one disease

**15. This passage primarily discusses .....**

- a) the history of research into oncology
- b) a changing approach to breast cancer
- c) the necessity of research in medical practice
- d) the latest view by the American College of Surgeons

**Passage Four**

Are scientists on the track of the fountain of youth? A report released Thursday in the journal "Science" highlights the milestones scientists have achieved in helping millions of people facing the challenge of aging. Experiments suggest that while our genes influence aging, there is no program that limits our life-span. The oxygen we need to live also causes oxidative damage. So researchers altered fruitflies to boost antioxidant defenses and lengthened the life-spans of fruitflies and other animals. "What happens is that they live longer, and they are more vigorous and the age - related changes that take place in their cells and body are delayed", said Raj Sohar of Southern Methodist University. Scientists suggest trying to lower metabolism by eating less and including in the diet a lot of fruits and vegetables high in anti-oxidants. Metabolism can also be lowered by taking naps. And while exercise is good, extreme levels of activity may not offer any advantage. David Finkelstein of the National Institute of Aging says: "I suspect the life-span will increase due to the interventions we can make."

**16. According to Mr. Finkelstein, it is ..... we can lengthen life-span.**

- a) likely                      b) definite                      c) doubtful                      d) improbable

**17. To the question starting the paragraph, we can give ..... at the end of passage.**

- a) no answer                      b) a relatively positive reply  
c) a negative response                      d) no answer in the near future

**18. Scientists carried out age-related studies through ..... experiments.**

- a) in vivo                      b) in vitro                      c) hypothetical                      d) speculative

**19. We understand that oxidative processes ..... our health.**

- a) aid in                      b) adversely affect  
c) are beneficial to                      d) fail to affect

**20. Antioxidant agents ..... the age-related changes in body cells.**

- a) postpone                      b) lengthen                      c) speed up                      d) augment

EMAD JAFARI

english for medical students

**Passage Five**

The anthrax bacteria can be easily manufactured in a laboratory- perhaps in a more potent form that is more resistant to treatment- and the current concern is that man-made anthrax can be used as a biological weapon. Others have tried to weaponize anthrax in the past, without much success. That's because it's extremely difficult to produce anthrax in a form that will deliver enough spores into people's lungs to make them sick. Some people are concerned about "outbreaks" of anthrax. The word "outbreak" usually refers to contagious diseases (like the flu) that spread quickly among people of a certain community or city. Anthrax is not a contagious disease, so an outbreak of this type would not occur in the same way that contagious diseases spread. Rather, an outbreak of anthrax could occur when a cluster of people are exposed to spores from the same source.

**21. According to the text, man-made anthrax .....**

- a) resists any known treatment
- b) is the most dangerous biological weapon
- c) is likely to withstand conventional treatment(s)
- d) fails to be hazardous enough to cause any concern

**22. One may get anthrax provided that .....**

- a) its man-made variety is involved
- b) (s)he is subjected to a large quantity of anthrax spores
- c) it is exhaled as a biological weapon
- d) he manufactures spores in his body

**23. Flu and anthrax are contrasted according to the**

- a) way they are transmitted
- b) degree they involve the community
- c) type of pathogen they contain
- d) history of the threat they pose

**24. An outbreak of the anthrax .....**

- a) is identical to that of the flu
- b) affects solely those involved in working with the spores
- c) occurs faster than that of the flu
- d) happens when many people are subjected to the same source

**25. The text implies that an outbreak of the anthrax .....**

- a) seems to be more spontaneous
- b) can be initiated by man
- c) is no longer so significant
- d) poses no serious danger nowadays



# عماد جعفری

مدرس زبان علوم پزشکی  
برگزار کننده دوره های  
مختلف زبان علوم پزشکی

 [emadjafari.com](http://emadjafari.com)

 0939 759 0359

 [emadjafari\\_english](https://www.instagram.com/emadjafari_english)

 [emadjafari\\_english](https://www.telegram.com/emadjafari_english)



**Part Two:  
Vocabulary**

**Directions**

*The following are incomplete sentences. Below each one four words or phrases marked, (a), (b), (c), or (d). Choose the one word or phrase which best completes the sentence.*

**26. Anticancer drugs have a place in the treatment of breast cancer, but they are often reserved as the last ..... after other things have failed.**

- a) record                      b) relief                      c) renown                      d) resort

**27. In spite of arguments against fluoridation, the ..... of fluoride in most toothpastes is currently recommended.**

- a) exploitation              b) exploration              c) expiration              d) exacerbation

**28. One can control and ..... bad breath by simply following an oral routine intended to neutralize the bad breath of microorganisms.**

- a) alleviate                      b) foster                      c) encourage                      d) stimulate

**29. To get the most out of life we should have a(an) ..... healthy body.**

- a) obese                      b) delicate                      c) imperfect                      d) sound

**30. Poor health may ..... poor diet, disease or lack of exercise.**

- a) result from                      b) affect                      c) serve as                      d) establish

**31. Since seat belts save lives, people should be ..... to wear them.**

- a) discouraged                      b) persuaded                      c) constrained                      d) restrained

**32. Besides the use of chemical drugs which can help recovery, it is now believed that Laughter ..... our immune system ability in its fight against illness.**

- a) augments                      b) curtails                      c) neutralizes                      d) suppresses

**33. The high incidents of infectious diseases in winter can ..... a link between cold weather and such disorders.**

- a) publicize                      b) ignore                      c) advertise                      d) reveal

**34. Many people with thyroid disorders are well controlled on drugs and can be ..... on one drug for most of their lives.**

- a) maintained                      b) proposed                      c) dedicated                      d) replicated

**35. Children can be helped to ..... their anxiety by protecting them from frightening experiences.**

- a) overcome                      b) overwhelm                      c) aggravate                      d) accumulate

**36. Most children are ..... when they get back home from hospital, but with patience and extra love they calm down quickly.**

- a) unscrambled                      b) unsettled                      c) unforeseen                      d) unresolved

**37. In a modern world, a strong sense of integrity is an ..... characteristic of a good manager.**

- a) irrespectable      b) irrelevant      c) indivisible      d) indispensable

**38. His nose is similar to his father's, but there the ..... ends.**

- a) resemblance      b) repetition      c) discordance      d) variation

**39. Studies have revealed that growth and development may be ..... as a result of a failure in nutrition.**

- a) impaired      b) augmented      c) retained      d) maintained

**40. She will unfortunately suffer rest of her life; the disease has caused.....damage to her brain.**

- a) regular      b) permanent      c) relevant      d) vulnerable



1	a	11	a	21	c	31	b
2	d	12	c	22	b	32	a
3	b	13	c	23	a	33	d
4	c	14	a	24	d	34	a
5	b	15	b	25	b	35	a
6	b	16	a	26	d	36	b
7	a	17	b	27	a	37	d
8	c	18	a	28	a	38	a
9	b	19	b	29	d	39	a
10	d	20	a	30	a	40	b

english for medical students