

Threat of Fatal Snakebites Often Overlooked

Difficulty:

DIFFICULT

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Discussion activities to be done after completing this EA lesson

Today's report was about the state of medical treatment of snakebites in the world today. Do experts know how many people die from snakebites each year? What could be done to improve treatment? In which countries? What examples of best practice were mentioned?

Extension discussion topics

A. Talking about and going over the specific topic / idea / issue in listening text

Introduction = The health challenge posed by snakebites.

1. What details did the report give about treating snakebites?
 - it's necessary to try to get the victim to a health center as quickly as possible.
 - a rapid diagnosis is critical in order to administer the right antivenom.
 - most snakebites must be treated with an antidote specific to that species.
 - many victims die needlessly because they consult traditional healers instead of seeking proper medical attention.
2. What details of the recent symposium do you remember from the report?
 - it took place at the American Society of Tropical Medicine and Hygiene in Philadelphia.
 - it was co-chaired by Ulrich Kuch from the Biodiversity and Climate Research Centre in Frankfurt, Germany.
 - experts discussed the global death toll from snakebites, and some (e.g., Kuch) felt the problem is underestimated.
 - new information from very rigorously designed and well-conducted studies in India and Bangladesh suggest the real death toll is much higher than a 2008 study suggested.
 - the atmosphere at the symposium was positive, despite the challenges faced because of a global increase in snakebite envenoming.
3. Which other countries or places were mentioned, and for what reason?
 - Laos: no antivenom available in the country.
 - many Asian and African countries: no antivenom available. In many countries, the cost and availability of antivenom vary considerably.

- Nepal: a community-based low-tech clinic with well-trained paramedics, where over 1000 snakebite victims are treated every year, is curing most of its patients. Some of them are brought in by volunteer motorcyclists. This successful program is expanding to other villages in the area, and over the border into India.

B. Expanding on (one of) the topics / ideas / issues in listening text

Topic = Snakes and other potentially venomous animals.

1. Did you learn new information about snakes in this report? What other details about snakes do you know that you can tell the group? Do you like snakes, or are you afraid of them in general because some are venomous? Have you ever held a snake? If so, when? / where? / describe the experience. Do you know anyone who keeps or has kept a snake as a pet? If so, give any details you can.
2. Which other animals or insects can be venomous? (scorpions, spiders, bees, toads, frogs, monitor lizards, Komodo dragons. Others?) How do they transmit their poison? (biting, stinging, secreting liquid through skin, poisonous saliva. Other?)
3. Do you have personal experience of incidents involving any of the animals or insects mentioned in question 2 above? Tell the group. Have you seen any documentaries about these animals, with details that you can remember? Can you remember any stories in the press or on TV or other media involving such animals?

OR, Topic = Dealing with snakebites.

Find out all you can about what you should and should not do when someone falls victim to a venomous snake. These two websites are good places to start your research.

<http://en.wikipedia.org/wiki/Snakebite>

<http://www.dshs.state.tx.us/idcu/health/zoonosis/animal/bites/information/venom/snake/>

Present your findings to your teacher or your group.

C. Extending discussion of (one of) the topics / ideas / issues in listening text

Topic = The accuracy of official statistics.

1. Today's report indicates that the 2008 figure of 94,000 deaths per year from snake bites understates the problem. Recent surveys suggest that the real death toll is much higher. Indeed, the Indian survey maintains that 46,000 people die from snakebites each year in India, whereas the official death toll is 2000 per year there.
<http://www.news-medical.net/news/20111205/Fatal-snakebites-emerging-global-threat.aspx>
For what reasons might the official figures be much lower than the real figures? (Death can occur very rapidly, many people don't consult healthcare staff for various reasons, and don't get into the records...)

2. Do you think official statistics are generally accurate? In which fields are they most likely to be precise? (medicine? politics? science? sports? consumer reports? other?) What methods of recording, and what equipment can be used to make sure that statistics are accurate? For what reasons may statistics not be accurate?
3. Are you responsible for producing statistics in any field? Do you know anyone who is? What are your / their methods of collecting data? Is it easy to collect that data? Do you think those statistics are accurate? If not, why not?
4. Can you think of any other areas where official data is difficult to collect? Explain your ideas.

Audioscript

Death and disability from the bite of poisonous snakes – snakebite envenoming – remains a little-noticed health challenge. But as the extent of the problem becomes better known, new strategies are improving patient treatment.

Neglected tropical diseases such as dengue, leishmaniasis, and trachoma are getting more attention these days, but other health threats are almost completely off the radar.

For example at the American Society of Tropical Medicine and Hygiene meeting in Philadelphia, experts considered the deadly toll taken by venomous snakes.

“Snakebite envenoming is a very acute and life-threatening and very complex condition.”

Ulrich Kuch of the Biodiversity and Climate Research Centre in Frankfurt, Germany, co-chaired a symposium on snakebite.

The extent of the problem is a little unclear. A 2008 study found poisonous snakes cause as many as ninety-four thousand deaths a year. But Kuch says that may understate the problem.

“New numbers from very rigorously designed and well-conducted studies in India and Bangladesh have come up with numbers that suggest that the real death toll of snakebites* at the global level is much higher.”

Many people die needlessly from the bites of poisonous snakes, Kuch says, because many snakebite victims consult traditional healers or otherwise fail to seek medical attention.

“Either because there is no treatment available, no antivenom, which is the specific drug to treat snakebites, or because healthcare staff do not know how to treat snakebites, or because transportation to get to a health facility is not available or too expensive.”

There is no generic antivenom used to treat snakebite. A patient must be treated with an antivenom specific to the particular species of snake. The life-saving antidote is often expensive, but cost and availability vary widely.

“For example, antivenoms in India, they are really not expensive, but you do have an issue of distribution and of training people in treating snakebites. In other countries, such as Laos for example and many other Asian and African countries, there's no antivenom at all.”

Despite the challenges, Kuch says the atmosphere at the symposium on snakebites was positive.

Because using the right antivenom is critical, rapid diagnosis tests are being developed to help health workers determine which to administer. The tests are designed to be used in poor, rural areas.

Kuch also mentioned the experience of a community-based clinic in Nepal, which showed it's possible to save lives by treating snakebites locally with specially-trained paramedics, working in a facility that treats only snakebites.

"And they have been trained to recognize all the symptoms of snakebite envenoming and to give the proper treatment for that. And most of the patients they receive can be cured in that low-tech facility. Because snakebites are so common in this village, they treat more than a thousand patients each year."

Volunteer motorcyclists can quickly bring snakebite victims from the surrounding area for treatment. The successful program has now expanded to other villages, and may be expanded to India as well.

That's today's health brief. This is Art Chimes reporting.

* The speaker should say: *"the real death toll **from** snakebites"* or *"the real death toll **of people dying from** snakebites"*.