

Urogynaecology

with Professor Cindy L. Amundsen

Talking points

KNOWLEDGE

1. Which parts of the body does the urinary tract include? Which of these are included in the lower urinary tract and which are in the upper urinary tract?
2. What do the acronyms LURN, LUTS and LUTD stand for?
3. What percentage of people aged over 60 does LUTD affect?
4. How many universities are involved in LURN?

COMPREHENSION

5. What are some of the different symptoms that can be associated with LUTD?
6. How can these symptoms affect someone's life?

APPLICATION

7. What questions would you ask the LURN team if you could meet them?

ANALYSIS

8. Why did Cindy and the rest of the team need to design new questionnaires for patients with LUTS?
9. What are two problems with current treatment methods for LUTD?
10. What varies between the different subtypes of LUTD? What are the LURN team hoping to do with this information?
11. Why are obstetrics and gynaecology often combined together?
12. Why is it important for LURN to be made up of scientists from different backgrounds?

Evaluation

13. The LURN team thinks that cross-state collaboration, while difficult, is worth it because of the large and diverse group of patients they will recruit. Do you agree? Why or why not?

Activities

1. On the LURN project website you can have a look at both LURN SI-10 and LURN SI-29, the two questionnaires that the team developed to ask people about their lower urinary tract symptoms:

nih-lurn.org/Resources/Questionnaires

Read through these questionnaires. Next, think of a different area of the body that may cause problems for people. Perhaps, for example, you know people with vision problems or have friends who get injured playing sports. For example, you might know a lot of people with vision problems or you might know people who regularly get injured from playing sports. Create your own questionnaire that comprehensively covers any symptoms someone might have with this area of the body, using SI-10 and SI-29 as examples.

Test your questionnaire on your classmates, friends or family members. If they do not have any symptoms, encourage them to answer the questionnaire pretending that they do.

After you have received some responses, add up the total score for each response so that you can rank your answers by severity. Try and cluster the responses together into subtypes in the same way that the LURN project team have done with their answers. Can you see any patterns emerging?

Reflect on what problems might arise from questionnaires. Do you think patients might accidentally miss a question? To what extent do you think patients always answer truthfully? How difficult might it be to remember exactly what happened in the last 7 days, as the LURN questionnaire asks?

Is there any way you think questionnaires could be improved to avoid these problems?

2. The LURN project works across the US with lots of different scientists, doctors and medical research professionals. Cindy says the two main difficulties with this collaboration are logistics and expense – it is both hard to coordinate between different time zones and costly to get everyone in the same place to discuss results.

Your task is to imagine you are the director of the LURN programme and are in charge of organising when and how the scientists are able to meet. What do you think you can do to help improve the current system?

Think about issues such as:

- What time are you going to schedule the virtual meetings?
- Which states will this be easiest or most difficult for?
- What type of accommodation are the scientists going to stay in when they meet in person, if they meet in person at all?

Think of as many different options as you can for how the logistics of this collaboration could be improved. Then, consider the pros and cons of different arrangements. For example, consider the positive research benefits of having everyone meet in person compared to the environmental and financial consequences of making the whole team travel.

Afterwards, compare your answers with those of your classmates. Is there anything you think you could suggest to the LURN team to help them?

More resources

- Watch the video in the 'About Me' section on Cindy's research page to listen to her introduce herself and describe what she is most passionate about within gynaecology: www.dukehealth.org/find-doctors-physicians/cindy-l-amundsen-md
- Visit the LURN website nih-lurn.org and twitter account @LURN_Research to see what the team has been up to. On the questionnaire tab of the website, you can even have a look at the SI-29 and SI-10 user manual, which gives more background to the research and explains the scoring process for the questionnaires.
- Cindy recommends taking part in Science Olympiads, which are science competitions for school students that have tournaments in different places around the world. Research to see if there is one near you. Here is an article from North Carolina Science about the Science Olympiads: www.sciencenc.com/what-are-the-science-olympiads. Duke University also has a team of undergraduate students who organise high-school Science Olympiads: www.dukescioly.org