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When Is It Really Recurrent Strep Throat?

Kari Oakes

When a child is sitting in your exam room with recurrent strep pharyngitis, the first question to ask yourself is "Is it real?"

The answer to that question comes with careful attention to the history and clinical presentation, according to John Bradley, MD, Chief of the Division of Infectious Diseases at the University of California, San Diego. But titers and viral polymerase chain reaction tests can also help clarify the diagnosis.

That involves some detective work and perhaps some legwork by the provider or the office staff, acknowledged Dr. Bradley during an antimicrobial update session at the American Academy of Pediatrics annual meeting. But it's worth the effort, especially in an era of increased concern about antimicrobial stewardship.

"Are the episodes really documented by you in your office?" Dr. Bradley asked. If so, the job is easier. If not, it's important to differentiate whether the strep infection was identified by culture or by an extremely sensitive rapid test—or whether any testing has been done at all.

Dr. Bradley noted that, somehow, it's still true that all group A streptococci are susceptible to penicillin, although penicillin does not always work. There's about a 10% failure rate for reasons that are not completely understood. One theory is that some individuals have other oropharyngeal flora that produce ß-lactamases, thereby negating penicillin's efficacy against the strep.

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One very good clue to whether the child has recurrent strep is the appearance of the throat. A viral illness can also produce a very red posterior oropharynx, so, unless there's frank pus, it's unlikely to be strep pharyngitis.

Some patients will, in fact, have recurrent strep. But some—even those who have positive rapid strep tests—actually may be carriers.

So, what is the carrier state? Dr. Bradley explained that while a rapid strep test may be positive, sometimes the culture is only "weakly positive," with growth that's usually less than 1+. The child who is a carrier is not symptomatic, will not have an elevated antistreptolysin O titer, and is not contagious. Also, the child will not respond to penicillin treatment.

How can clinicians differentiate a patient with recurrent strep from a child with frequent viral illnesses who's a carrier?

"For the standard case of 'recurrent strep,' please get cultures and document the density of group A strep to rule out the carrier state," said Dr. Bradley. Having parents send pictures of the throat during an episode—for which his facility has a secure portal—can save families an office visit. A negative antistreptolysin O titer can help rule out recurrent infection, he added.

When a child is having recurrent bouts of pharyngitis, but the clinical picture isn't clearly consistent with strep, providers can consider submitting multiplex viral polymerase chain reaction tests. "This can give the family an alternative diagnosis," noted Dr. Bradley, and reassure parents that it's safe to hold off on antibiotics.

Culturing between episodes of pharyngitis, when the patient is asymptomatic, can also help determine whether a child is a carrier. Sometimes, it makes sense to culture the whole family, Dr. Bradley said, as there have also been reports of family pets being Group A strep reservoirs.

For recurrent infection, choose a broad-spectrum agent that will work against both Group A strep and the oral flora that may be producing ß-lactamases or adhesion molecules that negate penicillin's efficacy. One logical choice is clindamycin for 10 days, although some strains are resistant. Another good choice is a 10-day course of amoxicillin/clavulanate or a cephalosporin. Penicillin can still be used if it's augmented by oral rifampin during the last four days of the 10-day course.

Long-term prophylaxis can also be considered for stubborn recurrences, Dr. Bradley noted.

Disclosures: Dr. Bradley reported no relevant conflicts of interest.

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Expires September 21, 2018

Revised Bethesda System Resets Thyroid Malignancy Risks

Mitchel Zoler

Under the newly revised Bethesda System for Reporting Thyroid Cytology, the six cytology-based diagnostic categories for thyroid lesions remain the same as in the first edition, published 10 years ago—but some associated malignancy risks have changed.

The revisions to the Bethesda System (New York: Springer US, 2010) resulted from a symposium held by the International Cytology Congress during its 2016 meeting in Yokohama, Japan (*ACTA Cytol*. 2016;60[5]:399-405). Edmund S. Cibas, MD, discussed the second edition at the World Congress on Thyroid Cancer, ahead of its official release in October 2017.

The reframing of malignancy risks is attributed to two main factors: routine molecular testing and creation of a new diagnostic category, the "noninvasive follicular thyroid neoplasm with papillary-like nuclear features" (NIFTP).

The NIFTP designation was created by an Endocrine Pathology Society working group in 2016 to describe an encapsulated follicular variant of papillary thyroid carcinoma that is characterized by lack of invasion, a follicular growth pattern, and nuclear features of papillary thyroid carcinoma with a very low risk for an adverse outcome (*JAMA Oncology*. 2016;2[8]:1023-1029; *Cancer Cytopathol*. 2016;124[9]:616-620).

NIFTP is not an overt malignancy. The revised Bethesda System "limits malignancy to cases with features of classic malignant papillary thyroid carcinoma," explained Dr. Cibas, Professor of Pathology at Harvard Medical School and Director of Cytopathology at Brigham and Women's Hospital, both in Boston.

Since the Bethesda System was devised, important changes have occurred: use of molecular testing to further assess malignancy risk in thyroid nodules and introduction of lobectomy as a treatment option, "which really wasn't an option 10 years ago," said Dr. Cibas. Because the System categories link to specific management recommendations, the new edition orients patients toward more conservative decisions, specifically lobectomies instead of total thyroidectomies.

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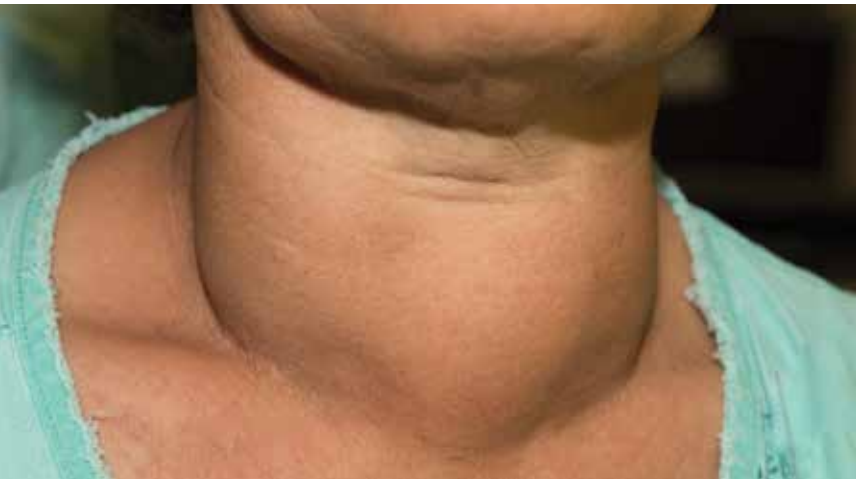

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The changes in risk for malignancy occurred primarily in two categories, "atypia of undetermined significance" (AUS) and "follicular lesions of undetermined significance" (FLUS). Risk increased from 5%-15% in the first edition of the Bethesda System to 10%-30% in the revision. A smaller increase was seen in the category of "follicular neoplasm" or "suspicious for follicular neoplasm," in which malignancy risk increased from 20%-30% to 25%-40%. And, in the suspicion of malignancy category, risk actually decreased modestly, from 60%-75% to 50%-75%.

Dr. Cibas acknowledged some quirks in the AUS/FLUS category. For one thing, "the first edition was not clear that AUS and FLUS are synonyms. That will be a lot clearer" in the second edition, he promised. The revision "will encourage labs that currently use [the terms] AUS and FLUS to mean two different things to make a choice between them." Furthermore, the limit on laboratories reporting this category increased to 10% of total reports, up from 7% in the first edition. Management changed from the single option of a repeat fine-needle aspiration specimen to either that or molecular testing.

Another quirk of the AUS and FLUS category is that the malignancy risk estimates are based on what Dr. Cibas called "flawed" data from a selected subset of AUS or FLUS patients who have had their nodule resected. "The reality is that most of the nodules are not resected" from patients with AUS or FLUS, so conclusions about the risk for malignancy come from a subset with considerable selection bias.

In the "follicular neoplasm" or "suspicious for follicular neoplasm" category, the definition now includes "mild nuclear changes," which can include increased nuclear size, contour irregularity, or chromatin clearing. The "suspicious for malignancy" category made a modest tweak to the risk for malignancy. Plus, "some of these patients will now undergo lobectomy rather than total thyroidectomy," which has been usual management.

The "suspicious for malignant" and "malignant" categories had little change aside from wider use of lobectomy, now feasible for any patient except those with metastatic disease, Dr. Cibas said.

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Tips for Avoiding Potentially Dangerous Patients

Gina Henderson

Clinicians who treat patients with emotional and psychiatric problems must put risk management interventions in place for their safety, said clinical and forensic psychologist Jeffrey N. Younggren, PhD, at the American Psychological Association (APA) annual convention.

"Many times, people lose sight of the nature of their therapeutic relationship," said

Dr. Younggren, Professor of Psychology at the University of Missouri in Columbia. To stay safe, clinicians must overreact, he said, just as they do with suicide risk assessments.

Dr. Younggren critiqued an APA article on safety (*Monitor on Psychology*. 2008;39[4]:36), saying many of the recommendations—such as don't work alone at night, install security cameras, and learn self-defense techniques—were unrealistic. "What does that mean?" he asked. "My best [self-defense technique] is to fall down."

He offered his own recommendations, which include

- Think about evacuation strategies. "Don't get between that individual and the door," said Dr. Younggren.
- Refuse to see patients who are inebriated or intoxicated. If a patient shows up for an appointment in one of these conditions and refuses to leave, call the police.
- Remove yourself from physical danger. "I'm a very good 'fall on the ground' person," said Dr. Younggren, who said he has been attacked by patients three times in his career. "That's a risk-management strategy."
- Terminate patients appropriately, in the absence of threats. However, "if someone threatens you, write them a letter, and you're done," he said.

Mismanagement of the therapeutic alliance can careen out of control, as it did in the case of Ensworth vs. Mullvain (Court of Appeal, Second District, Division 3, California; #B043890). In that case, decided in 1990, Heather Ensworth, PhD, a Pasadena psychologist, treated Cynthia Mullvain for just short of two years and then terminated the treatment. But Ms. Mullvain did not accept the termination and persuaded Dr. Ensworth to see her again "to resolve the termination issues to help [Mullvain] disengage from [Ensworth]."

After several harassing incidents, Dr. Ensworth terminated contact with Ms. Mullvain a second time. At this point, Dr. Ensworth sought and was granted a restraining order against the patient. Despite the restraining order, Ms. Mullvain's harassing behavior continued. Among other things, she stalked Dr. Ensworth, sent her threatening letters, and started doing community service work at a library located about 150 feet away from Dr. Ensworth's home, according to Dr. Ensworth's petition seeking a second restraining order. Ultimately, the court ruled that Ms. Mullvain had "willfully engaged in a course of conduct that seriously alarmed, annoyed, or harassed Ensworth, and that Ensworth actually suffered substantial emotional distress."

Beyond private offices, nurses and aides are at greatest risk when it comes to workplace violence, according to Ernest J. Bordini, PhD, a neuropsychologist with expertise in forensic assessment. In a 2013 report by the Occupational Health and Safety Administration, among health care workers, psychiatric aides had the highest rate of violent injuries that led to days away from work: 590 per 10,000 full-time employees, compared with 55 such injuries per 10,000 for nursing assistants. The report said the highest-risk specialty areas or settings were emergency departments, geriatrics, and behavioral health. (See box for resources on workplace violence).

Psychiatric patients are more likely to be the victims of violence than perpetrators, but, in an interview, Dr. Bordini said he wanted to add a point: "It is important to dismiss the notion that all psychiatric patients do not have elevated risks for assault. Those who present with psychoses or bipolar disorder can have elevated risk, especially if they develop delusional thoughts

Resources on Workplace Violence

American Medical Association
Latest policy on workplace violence
www.ama-assn.org/ama-adopts-new-public-health-policies-improve-health-nation

Occupational Health and Safety Administration
Guidelines on workplace violence in health care settings
www.osha.gov/Publications/OSHA3826.pdf

or obsessions about the therapist or another individual. Paranoid individuals already feel threatened and hence can strike out in anticipation."

He said he and his colleagues are not advocating that all clinicians train in self-defense or arm themselves—but it is essential to be proactive. Falling down may work for some, but "experience teaches us that playing possum does not always cease an attack," Dr. Bordini said. "I recommend de-escalation, escape, and/or self-defense plans that one has practiced, feels comfortable with, and feels confident that they can execute under stress."

Some patients are able to sense fear from the clinician. "If you're skittish, [this will] put you at higher risk," said Dr. Bordini, Executive Director of Clinical Psychology Associates of North Central Florida, in Gainesville. "That sense of intuition is something you should tend to."

He cited *The Gift of Fear* (New York: Dell, 1999) by Gavin de Becker as an example of a book that explores recognizing and reacting to subtle signs of danger, adding, "If you're not comfortable seeing a patient, listen to that [instinct]."

Disclosures: Neither Dr. Younggren nor Dr. Bordini had financial disclosures.

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Study Findings Support Uncapping MELD Score

Doug Brunk

Uncapping the current Model for End-Stage Liver Disease (MELD) score may provide a better path toward ensuring that patients most in need of a liver transplant get one, results from a large, long-term analysis showed.

Established in 2002, the MELD scoring system "was arbitrarily capped at 40 based on the presumption that transplanting patients with MELD greater than 40 would be futile," researchers led by Mitra K. Nadim, MD, reported in the *Journal of Hepatology* (2017;67[3]:517-525). "As a result, patients with MELD greater than 40 receive the same priority as patients with MELD of 40, differentiated only by their time on the waitlist."

Despite the cap at 40, they went on to note that the number of patients transplanted with a MELD score > 40 has increased by nearly threefold since 2002, with the greatest rates seen in Organ Procurement and Transplantation Network (OPTN) regions 5 and 7. (Region 5 includes Arizona, California, Nevada, New Mexico, and Utah, while region 7 includes Illinois, Minnesota, North Dakota, South Dakota, and Wisconsin.)

To determine the effect of capping the MELD score, Dr. Nadim, of the Division of Nephrology and Hypertension at the University of Southern California, Los Angeles, and her associates used United Network for Organ Sharing (UNOS) data to identify 65,776 patients listed for a liver transplant from February 2002 to December 2012. They followed the patients for 30 days to analyze the waitlist mortality and post-transplant outcomes of adult patients with MELD scores > 40, compared with patients who had MELD scores of 40.

The mean age of patients was 53, and most were white men. The researchers reported that 3.3% of waitlisted patients had a MELD score ≥ 40 at registration, while 7.3% had MELD scores increase to ≥ 40 after waitlist registration. In all, 30,369 patients (40.6%) underwent liver transplantation during the study period. Of these, 2,615 (8.6%) had a MELD score ≥ 40 at the time of their procedure. Compared with patients who had a MELD score of 40, those who had a MELD score > 40 had an increased risk for death within 30 days, and the risk

increased with rising scores. Specifically, the hazard ratio (HR) was 1.4 for those with a MELD score of 40-44; 2.6 for those with a MELD score of 45-49; and 5.0 for those with a MELD score of ≥ 50. There were no survival differences between the two groups at one and three years, but there was a survival benefit associated with liver transplantation as the MELD score increased above 40, the investigators reported.

"The arbitrary capping of the MELD at 40 has resulted in an unforeseen lack of objectivity for patients with MELD [score of greater than] 40 who are unjustifiably disadvantaged in a system designed to prioritize patients most in need," they concluded. "Uncapping the MELD score is another necessary step in the evolution of liver allocation and patient prioritization."

They added that a significant number of patients with a MELD score ≥ 40 "likely suffer from acute-on-chronic liver failure (ACLF), a recently recognized syndrome characterized by acute liver decompensation, other organ-system failures, and high short-term mortality in patients with end-stage liver disease. A capped MELD score fails to capture acute liver decompensation adequately, and data suggest that a model incorporating sudden increases in MELD predicts waitlist mortality better."

Dr. Nadim and her associates acknowledged certain limitations of the study, including its retrospective design "and that factors relating to a patient's suitability for transplantation or to a center's decision to accept or reject a liver allograft, both of which affect graft and patient survival, were not accounted for in the analysis. Despite these limitations, the study results have important implications for improving the current liver allocation policy."

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Disclosures: The study was supported in part by the Health Resources and Services Administration. The researchers reported having no relevant financial disclosures.

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'Motivational Pharmacotherapy' Engages Latino Patients With Depression

Whitney McKnight

Approaching treatment as a partnership between clinician and patient can help improve adherence in members of underserved racial/ethnic groups with depression, according to Roberto Lewis-Fernández, MD, Director of the New York State (NYS) Center of Excellence for Cultural Competence, as well as the

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Anxiety Disorders Clinic and the Hispanic Treatment Program at NYS Psychiatric Institute.

"There is plenty of evidence that clinicians are less likely to engage minorities in a participatory way," Dr. Lewis-Fernández said during a plenary session at an American Society of Clinical Psychopharmacology meeting. "They tend to ask fewer questions [of patients]. They tend to engage [patients] less in clinical decision making."

This can lead to nonadherence or even discontinuation of therapy. Dr. Lewis-Fernández said treatment nonadherence is common across all demographics, but it tends to be more common among members of underserved racial/ethnic groups—including Latinos and African-Americans.

One solution for bridging the "power differential" between therapist and patient, and improving adherence rates, is to use "motivational pharmacotherapy," a derivative of motivational interviewing created by Dr. Lewis-Fernández and colleagues. With motivational pharmacotherapy, patients are viewed as experts in the challenges of meeting the needs of their treatment plan. The clinician is the expert partner in the technical aspects of care.

Dr. Lewis-Fernández and colleagues conducted a 12-week, open-trial pilot study for this intervention in 50 first-generation Latino patients diagnosed with major depressive disorder (*Psychiatry*. 2013;76[3]:210-222). They found that 20% of patients discontinued treatment, with a mean therapy duration of 74.2 out of 84 days. In comparison, the literature reports discontinuation rates among Latino patients ranging from 32% to 53%, and previous studies conducted at Dr. Lewis-Fernández's own clinic, using similar medications and methods, revealed rates between 36% and 46%.

In the pilot study, responder and remitter rates were 82% and 68%. The average length of the first clinical visit was 36.7 minutes, and of subsequent visits, 24.3 minutes. Dr. Lewis-Fernández said this was compatible with community clinics.

Motivational pharmacotherapy relies on the psychotherapy components of motivational interviewing that address the need for behavioral change and for helping patients reduce their ambivalence toward taking antidepressants. Those components are combined with manualized pharmacotherapy.

The language and tone of this kind of intervention must be empathetic and nonconfrontational, Dr. Lewis-Fernández said. "You can't say to people who are ambivalent, 'No, you're wrong. Take your medication.' Instead, [focus on] the discrepancy between the current situation and the desired state. Then medication can serve as the solution."

This allows the patient to "roll with their resistance," he said, rather than meet it head on. In turn, this approach emphasizes the patient's capacity to advocate for himself or herself.

"You can't do the treatment without the patient," Dr. Lewis-Fernández said. "It's essentially psychoeducation."

Among some of Dr. Lewis-Fernández's tips for conducting this intervention

- Ask questions to elicit patients' cultural understanding about their illness and what troubles them most about their condition.
- Ask patients' permission to show them the supportive data for the intervention.
- Ask them about their thoughts and feelings in response to the data.
- Use their understanding of the pros and cons of the medication to "negotiate" their engagement.

In previous studies, Dr. Lewis-Fernández said, he and his colleagues analyzed the reasons for nonadherence, which he said often were tied to the "chaos of their lives." However, there were improvements after the patients engaged in this psychoeducation-enriched intervention.

Not blaming minority patients for poor adherence is important, he said, since their ambivalence takes place in the context of having less access to quality care. These patients face many obstacles in getting the care they need; insufficient clinician training in how to engage them should not be one of them, said Dr. Lewis-Fernández, who is also Professor of Clinical Psychiatry at Columbia University, New York. "We should be doing something about this as a profession." **CR**

Disclosures: Dr. Lewis-Fernández said he had no relevant disclosures. The study on motivational pharmacotherapy was sponsored by Pfizer and the National Institute of Mental Health.

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