Medical Errors Seen Through Different Lenses

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QUEBEC CITY — Clinicians, staff, and patients report medical errors in distinctly different ways, Robert L. Phillips Jr., M.D., said at the annual meeting of the North American Primary Care Research Group.

Patients tend to file fewer reports, while clinicians and staff are far more likely to report errors of process rather than errors of knowledge and skill.

Such variances are important to consider as error reporting becomes mandatory. The Patient Safety and Quality Improvement Act of 2005 (S. 544), signed into law this summer, establishes a voluntary system to report errors and near misses.

Dr. Phillips presented a study in which 10 family medicine clinics were asked to routinely report errors over a 10-week period. Additionally, on 5 intensive days, they were asked to report every error. Errors could be of omission or commission.

The top errors involved chart completeness and availability, medication, appointments, filing, laboratory work, and communication with patients.

The reports were anonymous and could be filed by mail, phone, or the Internet. Reporting took about 3-5 minutes.

Of the eligible reporting population, 401 (86%) clinicians and staff signed consent forms.

A total of 726 events were reported, of which 717 had at least one error. There were a total of 935 errors.

Just over half of the reports came from staff (384), a little over one-third from physicians (278), and relatively few from residents (46) and nurse practitioners and physician assistants (18).

The majority of reports came over the Internet (546), while 180 were mailed.

Although most of the reports were filed on routine vs. intensive-reporting days (440 vs. 265), there was a disproportionate amount filed on the 5 intensive-reporting days.

"Routine reporting does not approximate volume," said Dr. Phillips, director of the Robert Graham Center: Policy Studies in Family Medicine and Primary Care, Washington. "There has to be some other mechanism than routine reporting if you want to get at [errors], especially the common, less harmful mistakes."

The top errors were chart completeness and availability (176), medication (127), appointments (111), filing (84), laboratory work (82), and communication with patients (65).

Analysis revealed that 96% of the errors reported were process errors, suggesting that clinicians and staff either recognize more process errors or are reluctant to report errors of knowledge and skill, he said.

Clinicians were significantly more likely to report errors concerning medications, laboratory investigations, and diagnostic imaging, while staff members were more likely to report errors related to patient communication and appointments.

One of the more striking findings was that patients filed only 126 reports, of which 18 were actual errors. Of these, 6 were related to waiting too long, 2 were mistaken identity, and 10 cited a variety of issues, including credit card theft and even clinician-induced fear. Most patient reports were sent by mail.

While such insights are important, it's not clear if the overall lack of patient reporting is due to patients not seeing errors or if another tool is needed to collect the data, he said.

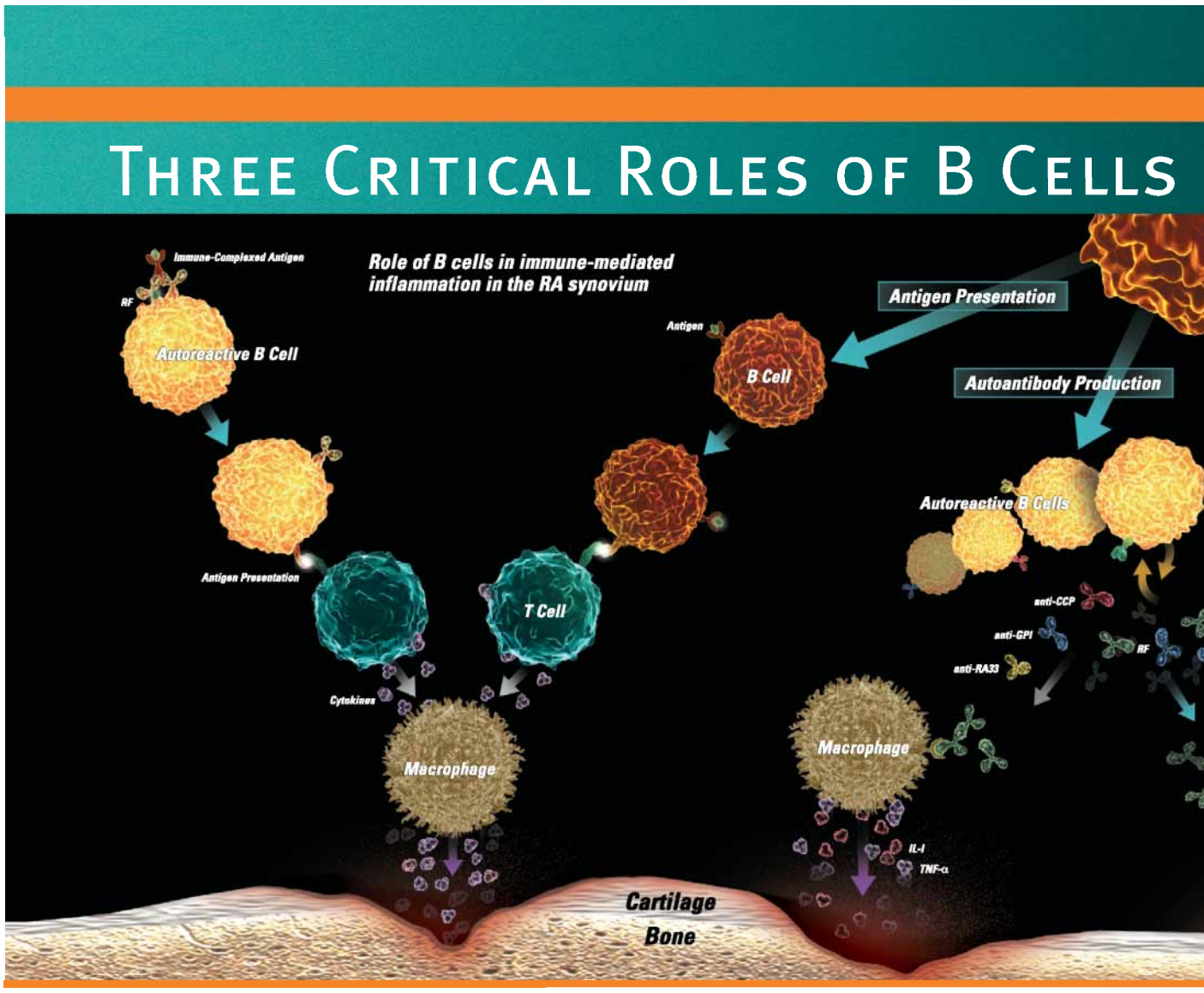
The audience suggested that patients may report less often because acknowledging an error might make them feel more at risk.

The analysis revealed that 706 reports indicated errors that caused health consequences or harm. There were no deaths, but nearly a quarter of the patients involved experienced some health consequence.

Reports from both staff and clinicians suggest that patients with complex health issues are vulnerable to more serious harm.

Of the reports that had multiple errors, 4 reports had four errors, 33 had three errors, and 183 had two. In 93 of these cases, a cascade of errors occurred as a result of an initial error, which usually involved an incomplete or unavailable chart.

The Robert Graham Center is a division of the American Academy of Family Physicians. ■



Thirty years ago, B cells were considered a significant contributing factor in the pathophysiology of RA because of the disease's association with polyclonal B-cell activation and the presence of autoantibodies, such as rheumatoid factor (RF), and immune complexes in the joint.[1,2] However, for much of the past 20 years, RA has mainly been considered as a T-cell mediated disease.[1] Only recently has new evidence rekindled strong interest in B cells and their important roles in the pathogenesis of RA.[3]

Current findings highlight 3 critical pathways by which B cells may initiate and perpetuate the inflammatory processes of RA: as highly efficient antigen-presenting cells,[3,4] as producers of autoantibodies,[5] and as producers of proinflammatory cytokines.[3,4,6]

AS HIGHLY EFFICIENT ANTIGEN-PRESENTING CELLS, B CELLS MAY CONTRIBUTE SIGNIFICANTLY TO T-CELL RESPONSES IN RA [3-5,7-9]

- B cells may provide both signals needed to activate T cells[3,4,7]
- RF-producing, autoreactive B cells may activate a wide range of T cells by presenting a variety of antigens to antigen-specific T cells[8]

B-cell–activated T cells produce proinflammatory cytokines that directly and indirectly perpetuate inflammation and joint destruction.[9]

REFERENCES: 1. Hirano T. *Nat Immunol.* 2002;3:342-344. 2. Zvaifler NJ. *Adv Immunol.* 1973;16:265-336. 3. Silverman GJ et al. *Arthritis Res Ther.* 2003;5(suppl 4):S1-S6. 4. Lund FE et al. *Curr Dir Autoimmun.* 2005;8:25-54. 5. O'Neill SK et al. *J Immunol.* 2005;174:3781-3788. 6. Duddy ME et al. *J Immunol.* 2004;172:3422-3427. 7. Dale DC et al. *WebMD Scientific American Medicine.* Chapter 6. WebMD Professional Publishing; 2002. 8. Roosnek E et al. *J Exp Med.* 1991;173:487-489. 9. Klippel JH et al. *Primer on the Rheumatic Diseases.* 12th ed. Chapter 9. Arthritis Foundation; 2001. 10. Sutton B et al. *Immunol Today.* 2000;21:177-183. 11. Abrahams VM et al. *Arthritis Rheum.* 2000;43:608-616. 12. Vishnevetsky D et al. *Ann Pharmacother.* 2004;38:1500-1508.