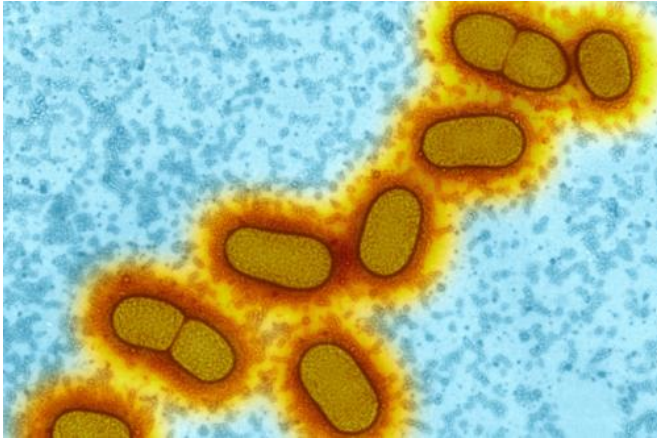


# Preventing needless dental emergencies

10 November 2014, by Gail Bambrick



Bacteria, such as *P. gingivalis*, can cause infection that leads to abscesses. Credit: CNRI/Science Source

The number of patients hospitalized for dental infections that could have been prevented with regular care or in-office root canals rose nearly 42 percent from 2000 to 2008, according to a first-of-its-kind study. In contrast, hospitalizations for all causes increased 5.3 percent during that same nine-year period.

The study, co-authored by Andrea Shah, DG12, and Kelly Leong, D14, indicates that many people cannot afford or have no access to routine dental care. That ultimately results in higher health-care costs. The research was published in the September 2013 edition of the *Journal of Endodontics*.

"The findings highlight the need to advocate [for] the importance of dental insurance as a way to improve access to dental care and reduce the number of hospitalizations" resulting from infections around the tooth root, or periapical abscesses, Shah and Leong wrote. The study is the first to examine longitudinal trends in hospitalization for oral infections. Before, only a snapshot of the prevalence of hospitalizations for periapical abscesses in 2007 was available.

A total of 61,439 patients were hospitalized in the U.S. between 2000 and 2008 for periapical abscesses, according to the study. If left untreated, these abscesses can perforate the oral cavity or sinus and spread [infection](#) into nearby bone and facial tissue, potentially eroding the bone and requiring surgery to clear the infection and reconstruct the bone.

The study found that 5,757 patients were hospitalized for tooth root infections in 2000, and that number rose to 8,141 in 2008. Shah, Leong and colleagues from the Harvard School of Dental Medicine and Boston Children's Hospital gathered their data from the Nationwide Inpatient Sample (NIS) database, which records the number of hospitalizations each year in the U.S. The work was funded by the American Association of Endodontists Foundation.

## A Problem That Shouldn't Be

"The fact of the matter is these people are going in with a preventable condition," Leong says. While the study analyzed statistics, the picture it draws indicates that too many people are not receiving regular dental care, she says.

The costs are high. The average hospital stay for periapical abscesses is three days, at a cost of about \$14,245 per patient, the researchers note. For perspective, a molar root canal performed by an endodontist runs about \$1,112. Extraction of an infected tooth by an oral surgeon costs roughly \$259, the study says. Those figures do not include costs for follow-up restorative care.

"By the time these infections require hospitalization, they are serious, and though it is rare, they can even be fatal," says Leong. Sixty-six patients listed in the NIS database did, in fact, die in the hospital. More than 89 percent of the patients with dental infections were hospitalized after an emergency room visit, indicating a lack of regular preventive care, says Shah, the study's lead author.

"These infections can be detected with a simple dental radiograph and clinical exam," Shah says. "Preventative [dental care](#) every six months would help to stop the infection from getting out of control." With nearly half (about 44 percent) of these hospitalizations covered by Medicaid or Medicare, and the uninsured accounting for another 18.5 percent, affordability and access to care are likely contributing factors, Shah says.

Cuts to government-funded dental coverage for the poor as well as the down economy during the years the researchers studied could account for some of the increase in hospitalizations, Shah notes.

Provided by Tufts University

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