



## Treating Asthmatic Patients: The Facts

Once a quarter, the *Journal* will feature a TDIC risk management case study, which provides analysis and practical advice on a variety of issues related to liability risks. Authored by TDIC risk management analysts, each article presents a case overview and real-life outcome, and reviews learning points and tips which everyone can apply to their practice.

Previously, these types of case studies were featured in *Liability Lifeline*, a quarterly newsletter from TDIC's Risk Management department. For your convenience, these articles have been incorporated into the *Journal* format.

According to the American Lung Association, “an estimated 29.8 million Americans have been diagnosed with asthma by a health professional.” With so many people suffering from asthma, it stands to reason that oral and maxillofacial surgeons see a number of asthmatic patients in their practices.

Different stimuli may trigger asthma attacks including:

- Respiratory infections, colds;
- Cigarette smoke;
- Allergic reactions (either seasonal or other substances or materials);
- Vigorous exercise;
- Exposure to cold air or sudden temperature change; and
- Excitement/stress/anxiety.

Many patients are anxious about visiting their dentist. While anxiety does not cause asthma, the body's response to the stress can trigger an attack in an asthmatic patient. Reducing stress during the dental appointment can help decrease the chance of an attack. The use of nitrous oxide or conscious sedation may also prove helpful for the asthmatic patient. However, the use of barbiturates and narcotics may predispose a patient to an attack; therefore, it is advisable to avoid premedicating with these types of drugs. Aspirin and penicillin have also been known to precipitate an attack. If there are specific allergens known to cause an attack, attempt to eliminate or minimize these elements when treating asthmatic patients. Allergens

such as dentifrices, fissure sealants, tooth enamel dust, methyl methacrylate, fluoride trays, and cotton rolls have been known to trigger attacks.

Asthmatic patients have a tendency to be mouth breathers which, when combined with asthma medications, cause dry mouth. The decrease in saliva causes asthmatic patients to have a higher risk for caries as well as bad breath. In the November/December 2002 issue of *General Dentistry*, John M. Coke, DDS, explained, “that asthma inhalers may irritate the back roof of the mouth, causing a reddish lesion, which creates an opportunistic infection that, if ignored, can spread and affect the throat and the rest of the mouth.” Be sure to talk to patients about the importance of vigilant brushing and flossing to prevent gum disease, and consider placing them on a more frequent recall, as well as ensuring the patient is using fluoride.

Because more people are suffering from asthma now than in the past, it is important for dentists to be prepared in the event a patient has an asthma attack in the office.

### Case Study

#### THERE IS NO SUCH THING AS TOO MANY QUESTIONS

An orthodontist referred his asthmatic 16-year-old male patient to an oral and maxillofacial surgeon for the extraction of deciduous teeth. The patient's mother filled out the health history form and

indicated her son had asthma and was currently taking albuterol. While reviewing the health history with the patient and his mother, the surgeon asked the patient how often he used his inhaler and whether he had ever been treated for asthma in the hospital. They both responded that he used his inhaler as needed and had never been hospitalized.

After taking radiographs, he showed them to the patient and his mother. He explained since there was very little root structure remaining, the teeth would come out very easily. The mother told him that her son was very nervous about the extractions and asked what could be done to minimize his stress. Although the extractions would likely take only five minutes, the surgeon recommended general anesthesia. The patient was relieved he would be able to sleep through the extractions. After deciding to use general anesthesia, the surgeon gave the mother the anesthesia preoperative instructions.

The patient arrived for his appointment with his parents. The surgeon asked the parents if they had any questions, which they did not. He explained the procedure would be completed quickly and they could see their son as soon as he started to wake up.

The extractions were completed without incident. While in recovery, he answered questions and followed verbal commands. Within five minutes, he began coughing. The assistant instructed him to continue coughing. He began to show signs of difficulty catching his breath. The assistant immediately placed an oxygen mask on the patient and called for the surgeon. He administered two puffs of albuterol, but his oxygen level continued to drop. He became unconscious and stopped breathing. The surgeon administered Narcan and succinylcholine and placed a size 8 ET tube. He was able to get oxygen into his lungs.

## Even though the mother signed an informed consent form for the use of general anesthesia, there was no indication the surgeon discussed the alternatives to general anesthesia.

He instructed the front office person to call 911 while he monitored the patient.

The emergency room doctor noted a slight pulse when he arrived at the hospital, but he remained in a coma for 10 days. The hospital released him three weeks later. The parents initiated a lawsuit against the surgeon for the negligent treatment of their son.

### What can be learned from this case?

During the discovery phase of the lawsuit, both the defense and plaintiff attorneys noted that even though the mother signed an informed consent form for the use of general anesthesia, there was no indication the surgeon discussed the alternatives to general anesthesia. The surgeon stated he recommended general anesthesia because of the patient's anxiety about the procedure. He did not discuss alternatives believing the orthodontist had already done so. He assumed the orthodontist referred them to his practice because he offers general anesthesia. When asked if he would have chosen general anesthesia knowing the patient suffered severe asthma, the surgeon answered he likely would have chosen local anesthetic.

The patient's radiographs indicated that two of the teeth extracted had no root structure and the third had very little. The plaintiff's attorney pressed the surgeon for the reason for using general anesthesia since the extractions were fairly simple. The surgeon repeated the mother's concern for her son's anxiety.

### TIP

Informed consent is a discussion with the patient about the recommended treatment, risks of treatment, benefits of the treatment, and the alternatives to treatment. Give all information necessary for the patient to make an "informed decision." The surgeon in this case explained the risks of general anesthesia but did not discuss the alternatives. During questioning, the patient's mother indicated she would have agreed to local anesthetic if she had been given that option.

The plaintiff's attorney also questioned the completed health history form. The mother indicated her son had asthma and was taking albuterol. When the surgeon asked the mother how often her son used his inhaler, she said "as needed." The surgeon even made note of this on the form. The plaintiff's attorney asked how he defined "as needed." The surgeon assumed it was infrequent. In fact, the mother told her attorney her son was using the inhaler every four hours for the two weeks prior to his hospitalization. The mother also told the attorney her son used a peak flow meter to monitor his breathing at home. The surgeon acknowledged having this information prior to treatment would have been important.

Both the patient and his mother also said he had not been hospitalized. The plaintiff's attorney asked the surgeon if he was aware that he had gone to the emergency room regularly over the past three months for his asthma. The surgeon was unaware of this because he only asked about hospitalizations not visits to the emergency room. When the plaintiff's attorney asked why he did not inquire about emergency room visits, the surgeon said he believed the mother should have offered that information when he was asking about hospitalizations.

**TIP**

The health history form assists dentists in determining whether a patient has a medical condition or is taking medications that might impact dental treatment. It is important for dentists to review not only the updated health history but also to ask the patient about any areas of concern or unanswered questions. Until they are questioned specifically, many patients may not understand how their overall health or medications they are taking may affect dental treatment.

Having accurate and up-to-date health history information is the first step in determining the degree to which patients

suffer from asthma and the possible severity of their condition. Collecting data during the health history discussion can assist in preventing asthma attacks from occurring in the office. Failing to review thoroughly the health history may have serious consequences should an attack occur in the office. When patients indicate they suffer from asthma, follow up with questions such as:

- How frequent are your attacks?
- What precipitates your attacks?
- What is the severity of your attacks?
- How are your attacks best managed?
- What medications are you currently taking?

- When was your last attack?
- Have you ever been to the emergency room or admitted into the hospital for an attack?
- Do you carry your inhaler with you?
- Do you use a peak flow meter?

When patients indicate they suffer frequent attacks or you believe their asthma is severe, contact their physician and discuss possible precautionary measures to prevent an attack during dental treatment. Discuss the best way to treat them should they experience an attack while in your office. Be sure to document the discussion and the physician's recommendations in the patient's chart.

While the surgeon reviewed the form with the mother and the patient, he failed to investigate further some of their vague responses. Had he questioned them more, he would have learned that the patient was not in control of his asthma, warranting a call to his treating physician.

### The Outcome

Both parties agreed to mediation. There was strong evidence that the mother did not offer enough information to the surgeon. Had all the information been given to him, he likely would have made an alternate treatment recommendation. His failure to question the mother further about her son's asthma would play a larger part in the eyes of the jury. The mediator told the surgeon that at trial, the plaintiff's attorney would likely enlarge the radiographs for the jury to get a clear picture of how simple the extractions were and then ask him why he chose general anesthesia over local. He would then question why he did not inform the mother of all the anesthesia options for her son. During mediation, the parties eventually reached a settlement. ■■■■

— ROBYN THOMASON

TDIC RISK MANAGEMENT ANALYST