

Note for Jane Doe on 2/10/2005- Chart 2646

Consultation was requested by Dr. Welby.

**Chief Complaint (1/1):** This 3 year-old female presents today for evaluation of chronic ear infections bilateral.

**Associated signs and symptoms for otitis media:** Associated signs and symptoms include: cough, fever, irritability and speech and language delay.

**Duration (ENT):** Duration of symptom: 12 rounds of antibiotics for otitis media.

**Quality of ear problems:** Quality of the pain is throbbing.

**Allergies:** No known medical allergies.

**Medications:** None currently.

**PMH:** Past medical history is unremarkable.

**PSH:** No previous surgeries.

**Social History:** Parent admits child is in a large daycare.

**Family History:** Parent admits a family history of Alzheimer's disease associated with paternal grandmother.

**ROS:** Unremarkable with exception of chief complaint.

**Physical Exam:** Temp: 99.6 Weight: 38 lbs.

Patient is a 3 year old female who appears pleasant, in no apparent distress, her given age, well developed, well nourished and with good attention to hygiene and body habitus.

The child is accompanied by her mother who communicates well in English.

**Head & Face:** Inspection of head and face shows no abnormalities.

Examination of salivary glands shows no abnormalities.

Facial strength is normal.

**Eyes:** Pupil exam reveals PERRLA.

**ENT:** Otosopic examination reveals otitis media bilateral.

Hearing exam using tuning fork shows hearing to be diminished bilateral.

Inspection of left ear reveals drainage of a small amount.

Exam by nasal speculum reveals nasal mucosa that is moist, pink, and without mass or exudate with no abnormalities of the septum and turbinates noted.

Bilateral maxillary sinuses transilluminate well.

Inspection of lips, teeth, gums, and palate reveals no gingival hypertrophy, no pyorrhea, healthy gums, healthy teeth and no abnormalities.

Inspection of the tongue reveals normal color, good motility and midline position.

Examination of oropharynx reveals no abnormalities.

Examination of nasopharynx reveals adenoid hypertrophy.

**Neck:** Neck exam reveals no abnormalities.

**Lymphatic:** No neck or supraclavicular lymphadenopathy noted

**Respiratory:** Chest inspection reveals chest configuration non-hyperinflated and symmetric expansion.

Auscultation of lungs reveal clear lung fields and no rubs noted.

**Cardiovascular:** Heart auscultation reveals no murmurs, gallop, rubs or clicks.

**Neurological/Psychiatric:** Testing of cranial nerves reveals no deficits.

Mood and affect normal and appropriate to situation.

**Test Results:** Audiometry test shows conductive hearing loss at 30 decibels and flat tympanogram.

**Impression:** OM, suppurative without spontaneous rupture. Hypertrophy of adenoids bilateral.

**Plan:**

Patient scheduled for myringotomy and tubes, with adenoidectomy, using general anesthesia, as outpatient and scheduled for 02/25/2005. Surgery will be performed at Children's Hospital.

Pre-operative consent form read and signed by parent. Common risks and side effects of the procedure and anesthesia were discussed. Parent questions elicited and answered satisfactorily regarding planned procedure.

Educational material provided: hospital pre-registration, middle ear infection and myringotomy and tubes surgery.

**Prescriptions:**

Augmentin Dosage: 400 mg-57 mg/5 ml powder for reconstitution Sig: One PO Q8h Dispense: 1  
Refills: 0 Allow Generic: No

**Patient Instructions:**

Patient provided information on ENT Procedures in the ear  
Dispensed literature on otitis media.

\_\_\_\_\_ John Doe, M.D.



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2/10/2005

Marcus Welby, M.D.  
1025 Ashworth Road, Suite 222  
West Des Moines, IA 50265

Dear Dr. Welby:

Jane Doe was seen in my office in consultation as requested by you as a new patient for evaluation and care. The following is a summary of my findings and recommendations:

**Impression:** OM, suppurative without spontaneous rupture. Hypertrophy of adenoids bilateral.

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Patient provided information on ENT Procedures in the ear  
Dispensed literature on otitis media.

If I may be of any further assistance in the care of your patient, please let me know. Thank you for providing me the opportunity to participate in the care of your patients.

Sincerely,

John Doe, M.D.

**CHILDRENS HOSPITAL**  
**Des Moines, IA**  
**Hospital Medical Record Number: 000123456-03**  
**OPERATIVE REPORT**

PATIENT: Jane Doe  
DATE OF PROCEDURE: 2/25/2005  
SURGEON: John Doe, M.D.  
PREOPERATIVE DIAGNOSIS: OM, suppurative without spontaneous rupture. Hypertrophy of adenoids bilateral. Hypertrophy of tonsils.  
POSTOPERATIVE DIAGNOSIS: Same as preoperative diagnosis  
NAME OF OPERATION: Tympanostomy (requiring insertion of ventilating tube), general anesthesia bilateral with Armstrong grommet tubes, Tonsillectomy and adenoidectomy; under age 12.  
ANESTHESIA: General  
COMPLICATIONS: None  
ESTIMATED BLOOD LOSS: Minimal  
DRAINS: None.  
CONSENT: The procedure, benefits, and risks were discussed in detail preoperatively. The parents agreed to proceed after all questions were answered. The risks discussed included airway obstruction, bleeding, dehydration, general anesthesia, nasopharyngeal stenosis, pain, persistent otitis media, retained tubes, swelling and tympanic membrane perforation.  
TECHNIQUE: The patient was brought to the operating room and placed in the supine position. After general mask anesthesia was adequately obtained, the right external auditory canal was cleaned out under the microscope. Radial incision was made in the anterior superior quadrant of the right tympanic membrane. Serous fluid was aspirated from the middle ear space. An Armstrong grommet tube was placed down through the incision and rotated into place. The opposite ear was then cleaned out under the microscope. Radial incision was made in the anterior superior quadrant of the left tympanic membrane. Serous fluid was aspirated from the middle ear space. An Armstrong grommet tube was placed down through the incision and rotated into place. Cortisporin suspension was placed in both ear canals.

Then the patient was intubated. A Crowe-Davis mouth gag was placed into the mouth and extended and hung on the Mayo stand. The red rubber catheter was placed down through the nose and brought out through the mouth to retract the palate. The adenoid fossa was visualized with the mirror. The adenoids were removed using the microdebrider. Two adenoid packs were placed. The packs were removed one by one. Using mirror and suction bovie, adequate hemostasis was achieved.

The tonsils were quite large and cryptic. The tenaculum was placed on the superior pole of the right tonsil. Cheesy material came out from the crypts. The tonsils were retracted medially. The bovie electrocautery was used to make an incision in the right anterior tonsillar pillar, and the plane was developed between the tonsil and the musculature. The tonsil was completely dissected out of this plane, preserving both the anterior and posterior tonsillar pillars. All bleeders were cauterized as they were encountered. The tenaculum was then placed on the superior pole of the left tonsil. Cheesy material came out from the crypts. The tonsils were retracted medially. The bovie electrocautery was used to make an incision in the left anterior tonsillar pillar, and the plane was developed between the tonsil and the musculature. The tonsil was completely dissected out of this plane, preserving both the anterior and posterior tonsillar pillars. All bleeders were cauterized as they were encountered. Both tonsil beds were then re-cauterized, paying particular attention to the inferior and superior poles.

The stomach was evacuated with the nasogastric tube. The patient was then awakened in the operating room, extubated and taken to the recovery room in satisfactory condition.

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John Doe, M.D.

Patient Instructions for Jane Doe on 2/10/2005

## ENT SURGICAL PROCEDURES

### EARS

#### **SOM: Serous Otitis Media**

Serous otitis media, better known as middle ear fluid, is the most common condition causing hearing loss in children. Normally, the space behind the eardrum that contains the bones of hearing is filled with air. This allows the normal transmission of sound. This space can become filled with fluid during colds or upper respiratory infections. Once the cold clears, the fluid will generally drain out of the ear through a tube that connects the middle ear to the nose, the Eustachian tube. The Eustachian tube does not drain well in children. Fluid that has accumulated in the middle ear space often remains blocked. Because children need hearing to learn speech, hearing loss from fluid in the middle ear can result in speech delay. Children begin to speak some words by 18 months. Children with fluid in both ears can show significant delay in their use of language. In addition, young children learn to pronounce words by hearing them spoken. When there is a hearing loss, even a mild one, the spoken words of parents and siblings are distorted to the child with fluid in the ears. Identification of fluid in the middle ear is important, not only to prevent future speech problems, but to avoid permanent damage to the eardrum and the middle ear. Most children will have at least one ear infection before the age of four. With treatment, the ear infections clear up promptly. Without the follow-up visit, fluid may still be present, even though the child has no complaints or symptoms. Therefore, it is essential that ear infections be rechecked after initial treatment. Usually, the presence of fluid results in a "mild conductive hearing loss." This could be as much as 30% hearing loss overall. After the specialist confirms that fluid is present behind both eardrums, further medical treatment is often advised. This may consist of additional antibiotics, decongestants, and in some cases, nasal sprays. If fluid has been present for over 12 weeks, surgical drainage of the fluid is often indicated. The decision to perform surgery should be based on the response to medical treatment, the degree of hearing loss and the appearance of the eardrum itself under the surgical microscope. Surgery that drains fluid involves a small incision in the eardrum, so that the fluid can be gently removed and a tube can be inserted. The procedure, medically termed a myringotomy and tubes, or tympanostomy and tube, (BMT if Bilateral) or PET (Pressure Equalizing Tubes), is performed on children under general anesthesia.

#### **BMT: Bilateral Myringotomy Tubes**

Surgery that drains fluid involves a small incision in the eardrum, so that the fluid can be gently removed and a tube can be inserted. The procedure, medically termed a myringotomy and tubes, or tympanostomy and tubes, is performed on children under general anesthesia. Surgery is performed on an ambulatory or same day surgery basis. Within an hour or two after surgery, the child can be discharged home, to be followed up by a visit to the specialist in approximately one week.

Parents often ask why the fluid cannot be drained without inserting a tube. The need for the tube insertion is because the eardrum incision generally heals very rapidly (within a few days), which is not long enough for the swollen membranes in the middle ear to return to normal. As soon as the eardrum heals, fluid will reaccumulate. Tubes were first introduced because of this very problem. There are many types of tubes, but all tubes serve the same function. They keep the eardrum open, allow air to enter the middle ear space, and permit fluid in the middle ear to drain. Most tubes will gradually be rejected by the ear and work their way out of the eardrum. As they come out, the eardrum seals behind the tube. Tubes will last four to six months in the eardrum before they come out. Occasionally, the eardrum does not heal completely when the tube comes out. The majority of children treated with tubes do not require further surgery. They may have ear infections in the future, but most will clear up with medical treatment. Some children are very prone to ear infections and have a tendency to accumulate fluid after each infection. Children tend to outgrow this cycle by age 7 or 8. In an ear, nose and throat specialty practice, this group comprises 10 to 15% of all children who have required tubes. Occasionally the physician has to physically remove the tube from the eardrum. (PE Tube Removal)

PO Restrictions: No water in ears while tubes are in place. Patient needs to wear earplugs when swimming or cotton ball with Vaseline on it while in tub. ProPlugs are \$10 and Headbands are \$\_\_\_\_\_

## **Adenoid Hypertrophy**

The adenoids are lymph tissue, similar to the tonsils. The adenoids are located behind the nose and soft palate; they are normally present in all children. With frequent infections of the nose and throat, the adenoids may become enlarged, obstructing nasal breathing. Since the adenoids are next to the area of the Eustachian tube, their enlargement (hypertrophy) or infection may contribute to recurring ear problems.

Restrictions: don't get ears wet; no swimming or submersion

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## OTITIS MEDIA

What is it?

Otitis media is an infection of the middle ear space where the small bones and nerves of the ear connect to the eardrum on one side and the eustachian tube on the other. The ear infection itself is not contagious but the respiratory infection preceding it is transmittable. Otitis media is most often seen in infants and young children. There are several causes including a viral or bacterial infection that spreads to the middle ear by way of the eustachian tubes, nasal allergy drainage blocking the sinuses or eustachian tubes, enlarged adenoids also blocking sinuses or eustachian tubes and eardrum rupture. Many factors can increase the risk of an ear infection like recent upper respiratory tract illness, crowded living conditions, family history of ear infections, day care, smoking in household, altitude changes, cold weather and genetic factors.

Signs and symptoms:

- \* Irritability.
- \* Ear pain, fullness, hearing loss.
- \* Infants may pull on ear.
- \* Fever.
- \* Vomiting.
- \* Discharge from ear.
- \* Diarrhea.

Treatment:

- \* Diagnosis is by physical exam and otoscopic exam. Sometimes fluid from the ear is cultured.
- \* Pain relievers, like acetaminophen (Tylenol). Infant pain relievers are available.
- \* Decongestant to relieve symptoms of upper respiratory tract infection.
- \* Antibiotics when indicated for bacterial infection such as Amoxicillin or Zithromycin. Finish ALL antibiotics as prescribed. Do not stop the medication even if symptoms subside.
- \* Avoid swimming until infection goes away.
- \* Surgery is sometimes necessary to put in tubes through the eardrum to equalize pressure and drain fluids.
- \* Surgery to remove adenoids if they are enlarged.
- \* Reduce activity until symptoms subside.

Call our office if symptoms do not improve within 2 days of treatment, and for convulsion, fever, ear swelling, dizziness, twitching facial muscles and severe headache.

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John Doe, M.D.

**Medical Clinic**

1025 Ashworth Road, Suite 222  
West Des Moines IA 50265

**PRESCRIBER:** John Doe, M.D.  
**TELEPHONE:** (515)327-8850  
**DEA:** 123456789

**PATIENT:** Jane Doe  
**ADDRESS:** 1025 Ashworth Road, Suite 222  
West Des Moines, IA 50265

**TELEPHONE:** 515-327-8850  
**DOB:** 11-30-2001  
**DATE:** 2/10/2005

**R<sub>x</sub>**

Augmentin 400 mg-57 mg/5 ml powder for reconstitution

**Disp:** 1

**Sig:** One PO Q8h

**Refills:** 0

X DISPENSE AS WRITTEN  
GENERIC SUBSTITUTION PERMITTED

\_\_\_\_\_  
SIGNATURE OF PRESCRIBER

**Billing Statement - Friday, July 22, 2005**

**Provider:** John Doe, M.D.

**Patient:** Jane Doe, Chart 2646  
1025 Ashworth Road, Suite 222  
West Des Moines, IA 50265

**Diagnoses**

- 1. 382.00 Acute Suppurative Otitis Media Without Spontaneous Rupture Of Eardrum
- 2. 474.12 Hypertrophy Of Adenoids Alone

**Treatments**

- 1. 99202 Office or other outpatient visit - new patient - 20 min.  
Related Diagnoses: 382.00  
Modifiers:  
Units:
- 2. 92557 Comprehensive Audiometry Threshold Evaluation And Speech Recognition  
(92553 And 92556 Combined)  
Related Diagnoses: 382.00  
Modifiers:  
Units:

**Referring Physician:** Dr. Pediatrician  
**Date Last Seen:** 1/21/2004