



RN<sub>2</sub>

# Regional Neonatal News & Notes

June, 2005

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## *Klebsiella pneumoniae*

*Klebsiella pneumoniae* is a bacteria and is a member of the Enterobacteriaceae family. It is a Gram negative rod (GNR) or bacillus. It is a normal flora of the intestinal tract. In neonates it can be a cause of septicemia, meningitis and pneumonia. It has also been associated with an outbreak of necrotizing enterocolitis (NEC).

*Klebsiella* can be transmitted to the neonate from the mother's gastrointestinal tract as well as from nursery workers and equipment and surfaces in the nursery. It is seen in both early and late onset sepsis. Risk factors for infection with *Klebsiella* as well as other Gram negative rods include low birth weight, maternal perinatal infection, prolonged rupture of membranes and septic or traumatic delivery. Metabolic acidosis, fetal hypoxia, skin breakdown and immunologic abnormalities are also risk factors.

*Klebsiella* is diagnosed by first doing a Gram stain which quickly tells you whether the organism is Gram positive or Gram negative and also shape of the bacteria (rod or coccus). Samples are also examined microscopically as well

as being placed in a culture medium to be grown and identified.

Neonates with suspected sepsis and/or meningitis are treated initially with ampicillin and an aminoglycoside such as gentamicin. After the organism is identified in culture as *Klebsiella*, and the sensitivities to various antibiotics determined, the appropriate antibiotics are ordered. Septicemia is usually treated with an aminoglycoside and/or an appropriate third generation cephalosporin. *Klebsiella* meningitis may be treated with a third generation cephalosporin alone or in combination with other drugs. Depending on how the infant responds, sepsis is usually treated for 10-14 days and meningitis is treated for at least 21 days. Certain Gram negative rods, including *Klebsiella*, now have strains that are resistant to cephalosporins. For that reason, cephalosporins such as cefotaxime are no longer used in the initial treatment of suspected sepsis.

Infants with *Klebsiella* sepsis or meningitis do not need to be isolated. Standard precautions need only be observed.

Joan Lucas, BSN, RNC, NNP

**Congratulations to the following facilities and perinatal staffs for successful completion of educational offerings:**

**SOUTHEAST**

**GEORGIA**

Cartersville Medical Center, Cartersville, Georgia  
Columbus Regional Medical Center, Columbus, GA  
Emory Eastside Medical Center, Snellville, Georgia  
Northside Hospital, Atlanta, GA  
Southern Regional Medical Center, Riverdale, GA

**NORTH CAROLINA**

Bladen County Hospital, Elizabethtown, NC  
Caldwell Memorial Hospital, Lenoir, NC  
Carteret General Hospital, Morehead City, NC  
Chowan Hospital, Edenton, NC  
Columbus Regional Health Care System, Whiteville, NC  
Cape Fear Valley Medical Center, Fayetteville, NC  
Duke Health System, Durham, NC  
Durham Regional Hospital, Durham, NC  
First Health, Moore Regional Hospital, Pinehurst, NC  
Frye Regional Medical Center, Hickory, NC  
Gaston Memorial Hospital, Gastonia, NC  
Grace Hospital, Morganton, NC  
High Point Regional Hospital, High Point, NC  
Lexington Memorial Hospital, Lexington, NC

McDowell Hospital, Marion, NC  
Murphy Medical Center, Murphy, NC  
Nash General Hospital, Rocky Mount, NC  
Northeast Medical Center, Concord, NC  
Onslow Memorial Hospital, Jacksonville, NC  
Presbyterian Hospital, Charlotte, NC  
Raleigh Community Hospital, Raleigh, NC  
Randolph Hospital, Asheboro, NC  
Rex Healthcare, Raleigh, NC  
Scotland Memorial Hospital, Laurinburg, NC  
University Hospital of Eastern NC, Greenville, NC  
WakeMed, Raleigh, NC

**SOUTH CAROLINA**

McLeod Medical Center, Florence, SC

**SOUTHWEST**

Navarro College, Corsicana, TX  
The Medical Center of Aurora, Aurora, CO  
UCHC, Tucson, AZ

**MIDWEST**

Children's Hospital of Michigan, Detroit, MI

**OUTSIDE USA**

Federal Medical Center, Jalingo, Taraba, Nigeria, Africa

**CONGRATULATIONS!!!!**

**To Everyone  
& Thank You**



## Upcoming Educational Offering

Make a note: **Fall Update 2005** will be held Friday, October 14, 2005 at the Holiday Inn, Bordeaux in Fayetteville, NC. As in years past, we are looking forward to a stimulating and thought provoking day.

Presentations will include:

- ▶ The Alien Within: Menopause
- ▶ Pre/Post-Operative Management of Necrotizing Enterocolitis (NEC)
- ▶ Insulin Pumps in the Pediatric Population
- ▶ Spice it up, Soothe it Down: Substance Use in Pregnancy
- ▶ My Broken Heart: Recognition of Congenital Heart Defects

.....and much, much more.

If you've attended in the past, you are already on the mailing list.

If you haven't attended in the past and would like to be on the mailing list please email us at:

[acashwell@capefearvalley.com](mailto:acashwell@capefearvalley.com)

-or-

[jslusser@capefearvalley.com](mailto:jslusser@capefearvalley.com)

We look forward to seeing you in October.

## What's New on the WebPage???

**Physiologic Changes of Pregnancy:** Now available on the WebPage. CH: 4.4

Congratulations!! to an RN from Frye Regional Medical Center, Hickory, NC for being the 1st to complete this activity.

**Hypoglycemia in the Newborn** In development. Due Summer/Fall, 2005.

## Amniotic Band Syndrome

Amniotic Band Syndrome (ABS), also known as Amnion Rupture Sequence, is an uncommon process that can happen to anyone. ABS is thought to occur during the first 12 weeks of pregnancy, when the amnion—the inner membrane of the placental structure—ruptures. This exposes the baby to fibrous tissue which can float in the waters of the uterus. These fibrous tissues can entangle the baby and cause multiple anomalies as well as limb anomalies and amputations. ABS has many different names but, by whatever name, all are characterized by distinct fetal malformations.

The most common clinical manifestations are intrauterine amputations, acrosyndactyly (conjoined tips of fingers or toes), limb deformities and distal ring constrictions. It has been found that ABS is the most common cause of a terminal congenital malformation of a limb. Other abnormalities found with ABS are webbed fingers and toes, progressive lymphedema (swelling), club-foot and/or hand, stunted growth of fingers and toes and limb length discrepancy, cleft lip and palate.

Amniotic Band Syndrome affects 1:1200 to 1:1500 live births. In 50% of the ABS cases the baby does not survive. It is believed to be the cause of 178 in 10,000 miscarriages. Amniotic Band Syndrome was once thought to be a rare anomaly but recent literature supports a more frequent incidence and occurrence. ABS is not genetic which means it is not inherited and cannot be passed on.

When asymmetric fetal anomalies are observed on ultrasound or after the baby is born, regardless of the presence or absence of fibrous membranes, ABS should be considered.

.....Cindy Russell, RNC, NNP

