# Gender as a Risk Factor for Antibiotic Resistance – Independent Risk Factors in a Multivariate Model for Pneumococcal Bacteremia in Women

Variable	Odds Ratio	95% Confidence Interval
Pediatric Serotype	1.59	1.18 – 2.15
Penicillin Resistance	1.65	1.06 – 2.59
HIV Seropositive	1.85	1.26 – 2.71
Age 18 – 39 vs. 40+	1.72	1.25 – 2.36

Buie et al, JID 2004, 189, 1996 - 200015

### Characteristics Levofloxacin -nonsusceptible Levofloxacinsusceptible Levofloxacinsusceptible Value Confidence intervals)

Levofloxacin – Resistant Pneumococci in Children in South Africa

2000-2006

Age (years)\*

1 (0-13)

1 (0-15)

0.81

Not available

7/12 (58)

4265/7855

0.78

1.18 (0.37-3.71)

3/12 (33)

5/12 (42)

12/12 (100)

9/9 (100)

8/10 (80)

8/9 (89)

4/10 (40)

**Isolation from CSF** 

2003-2006#

HIV

Penicillin non-susceptible

Rifampin non-susceptible

Nosocomial infection

History of tuberculosis treatment

cases with known outcome)

Case fatality rate (no of deaths/no of

(54)

2371/8040

(29)

2955/8040

(37)

355/8040 (4)

1376/1745

(79)

109/2709 (4)

396/2202 (18)

622/2695 (23)

Von Gottberg, Klugman et al, Lancet, 2008, 371,1108.

0.73

0.72

< 0.001

0.12

< 0.001

< 0.001

0.20

0.80(0.22-2.94)

1.23 (0.39-3.87)

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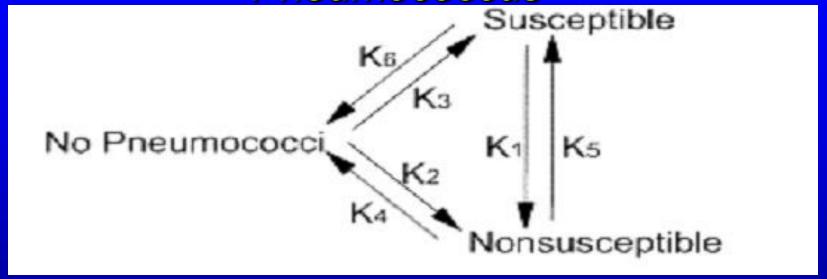
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88.96 (19.10-414.29)

35.78 (4.49-285.30)

2.21 (0.63-7.82)

## Impact of Fansidar Therapy for Malaria on Cotrimoxazole - Resistance in the Pneumococcus



TRANSITION RATE BETWEEN INITIAL VISIT AND 1-WEEK VISIT	K1	
No Treatment	6/50	(12%)
Cotrimoxazole	29/69	(42%)
Fansidar	29/96	(30%)

TRANSITION RATE BETWEEN INITIAL VISIT AND 4-WEEK VISIT	<b>K</b> 1	
No Treatment	2/24	(8%)
Cotrimoxazole	9/40	(23%)
Fansidar	28/73	(38%)

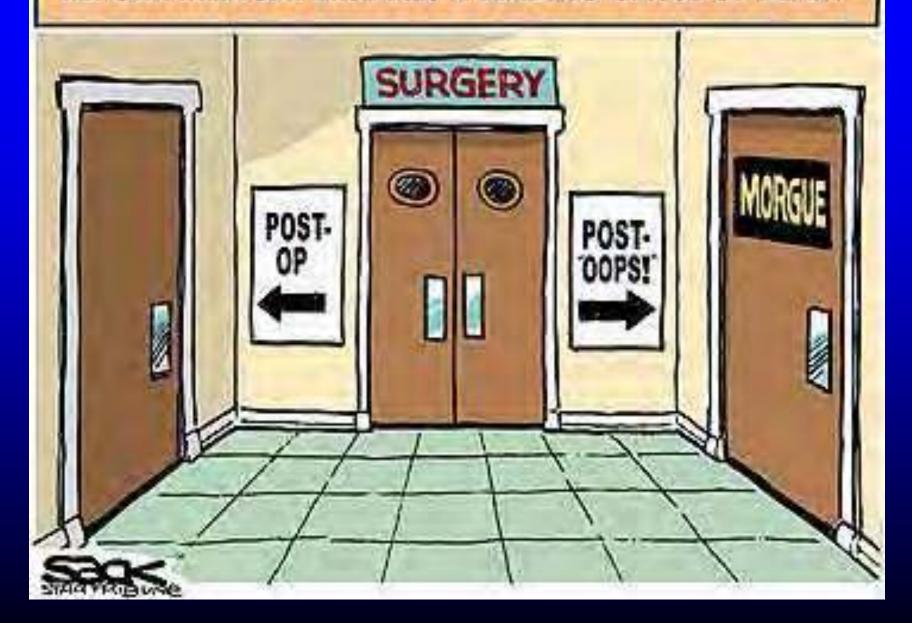
### Vaccine Efficacy and Artemesinin Resistance

- Efficacy of RTS,S/AS01E Vaccine against Malaria in Children 5 to 17 Months of Age, Bejon et al, NEJM, Dec 11, 2008. Intention-to-treat analysis, which showed an unadjusted efficacy rate of 49% (95% CI, 26 to 65; P<0.001)
- Evidence of Artemisinin-Resistant Malaria in Western Cambodia. Noedl et al, NEJM epub ahead of print Dec 8.

### **HIV Resistance**

- Response to antiretroviral therapy after a single, peripartum dose of nevirapine Lockman et al, NEJM, Jan 11, 2007.
- Among 60 women starting antiretroviral treatment within 6 months after receiving placebo or a single dose of nevirapine, no women in the placebo group and 41.7% in the nevirapine group had virologic failure (P<0.001).

#### REPORT: MEDICAL MISTAKES A LEADING CAUSE OF DEATH



#### BAD BUGS, NO DRUGS

As Antibiotic Discovery Stagnates ... A Public Health Crisis Brews



