INFECTION (including HIV, CAP)

INFECTIONS (including HIV, CAP)—Clinical Outcomes Studies

PIN1

CLINICAL PRACTICE GUIDELINE EVALUATION: NEONATAL INFECTION WITH MATERNAL HISTORY OF PREMATURE RUPTURE OF MEMBRANE (PROM)
Srijaritt W*, Ratanaokan W*, Chammenton A, Saeng-arun P*
1Mahidol University, Bangkok, Thailand; 2Phramongktukklao Hospital and College of Medicine, Bangkok, Thailand

OBJECTIVES: To evaluate Phramongktukklao CPG for treatment of neonatal infection in newborn infants with maternal history of PROM for ≥18 hours and the impact on saving hospital cost.

METHODS: Prospective cohort study. Infants with maternal history of PROM were categorized into 1 of 3 groups: group I, having symptoms within 6 hours after birth; group II, having history of maternal chorioamnionitis and group III, healthy infants without history of maternal chorioamnionitis. All infants in group I and II were treated with antibiotics. Infants in group III were ranked by using PROM scoring system. The success of CPG was defined as no re-admission due to infection occurred within 28 days of age. Logistic regression was used to determine the association between neonatal infection and risk factors.

RESULTS: In total, 109 of 5182 (2.10%) infants born during study period had maternal history of PROM, 5 cases were excluded. Twenty-nine of 104 (27.8%) infants had infection and were treated with antibiotics. The CPG successfully identified different risk of infection in 102 of 104 (98.08%) infants. The use of CPG reduced a number of infants treated with antibiotics from 81 to 38 (53.09%) compared to the previous strategies. The relative risk of 1-minute Apgar scores ≤5, duration of PROM >72 hours, gestational age <34 wk, birth weight 1500–2500 g and birth weight <1500 g were 3.82 (95% CI 2.43–5.99), 3.47 (95% CI 1.56–7.72), 5.33 (95% CI 2.77–10.25), 3.40 (95% CI 1.84–6.28) and 6.17 (95% CI 3.67–10.35), respectively. Logistic regression analysis equation was log [Infection Rate] = 4.148 – 3.028 [gestational age <34 wk] –2.444 [gestation age 34–37 wk] –3.029 [1-minute Apgar score] (R^2 = 0.84). Using CPG reduced expenditure for treatment from 469,395 Baht to 237,700 Baht or 139,017 Baht per year.

CONCLUSIONS: Phramongktukklao CPG on PROM is safe and cost saving for managing newborn infants at risk.

INFECTION (including HIV, CAP)

INFECTIONS (including HIV, CAP)—Cost Studies

PIN2

COST-EFFECTIVENESS OF LINEZOLID VERSUS VANCOMYCIN IN SUSPECTED METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS IN NOSOCOMIAL PNEUMONIA IN GERMANY
Gruenewald T*, De Cock E*, Sorensen SV*, Baker TM*, Resch A*, Hardewig J*, Duttagupta S*
1Städt. Klinikum St. Georg, Leipzig, Germany; 2MEDTAP International Inc, London, UK; 3MEDTAP International Inc, Bethesda, MD, USA; *Pfizer GmbH, Karlsruhe, Germany; †Pfizer Inc, New York, NY, USA

OBJECTIVES: A recent multi-country clinical trial of complicated skin and soft-tissue infections (cSSTI) due to proven or suspected methicillin-resistant Staphylococcus aureus (MRSA) demonstrated superior efficacy with linezolid compared with vancomycin. In this study, we estimated whether treatment with linezolid was also cost-effective versus vancomycin in patients with cSSTI. METHODS: All 1180 patients from the clinical trial (592 linezolid, 588 vancomycin) admitted to hospitals in 16 countries with cSSTI due to suspected or proven MRSA were studied. Costs of hospitalization for each patient were estimated by applying country-specific 2003 per diem hospital costs for days in the medical/surgical, intensive care, or the step-down units. Costs of intravenous (IV) therapy were applied to the duration of IV treatment plus administration costs. Medications were valued at wholesale acquisition cost. Medical resource costs from available countries were used before converting to US dollars using purchasing power parity adjustments. Furthermore, both costs and outcomes were risk adjusted using multivariate methods to account for patient population differences between countries. The cost effectiveness was measured as incremental cost per additional patient cured. RESULTS: There were no significant differences at baseline in clinical and demographic characteristics between the linezolid and vancomycin groups. Average risk-adjusted cost for patients treated with linezolid was $3629 versus $4410 (P < 0.0001) for patients treated with vancomycin. In addition, the predicted cure rate for the linezolid...