



# Sri Lanka Association of Clinical Pharmacology and Therapeutics (SLACPT)

**Scientific Sessions 2017**

*"Clinical Pharmacology for Safe use of Medicines"*

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**NATIONAL  
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**INTRODUCTION:** Gentamicin is widely used in neonates for the treatment of early onset sepsis. Due to its narrow therapeutic index, it is necessary to monitor serum concentration to ensure adequate therapeutic levels whilst avoiding high trough levels which correlate with toxicity. Once daily or twice daily dosing intervals, are practiced in neonatal units in Sri Lanka. We assessed the safety and efficacy of twice daily dosing schedule of intravenous gentamicin used in term neonates.

**OBJECTIVES:** To see whether the twice daily dosing schedule of gentamicin used in neonates is effective in

- a) avoiding high serum trough levels
- b) achieving peak serum levels in therapeutic range

**METHOD:** A prospective study was done from April to July 2017. Term neonates less than one week old, in the neonatal unit of Teaching Hospital, Kandy, on whom gentamicin was started were included. Serum gentamicin levels were assessed in all neonates immediately before and one hour after the third dose of gentamicin. Serum creatinine was measured in all.

**RESULTS:** Total of 25 patients of maturity 37-41 weeks and birth weight- 2.5-4.1 kg were included. The mean trough serum level of gentamicin was 2.14 mg/dl. High trough levels (more than 2 mg/dl) were noted in 48% neonates. Mean peak serum level was 7.1 mg/dl (3.45 to 10.36). Peak serum levels in therapeutic range were observed in 80% of neonates. Serum creatinine levels were within normal range in all neonates.

**CONCLUSIONS:** Twice daily dosing schedule of gentamicin achieved peak serum levels in therapeutic range in 80% of neonates but resulted in unacceptably high trough levels in 48%.

## OP – 05

### **Appropriateness of medicines prescribed to geriatric inmates of selected elderly care homes: Evidence from a cohort of Sri Lanka**

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**OBJECTIVES:** To identify medication-related errors among prescriptions of inmates in selected elderly care institutions.

**METHOD:** A prospective, cross-sectional, multi-centre study was conducted in selected elderly care homes in the Colombo district. Inmates with chronic, non-communicable diseases, not diagnosed with psychiatric disorders were recruited. A detailed medication history was obtained from each inmate (or caregiver) and the appropriateness of medicines in their current prescription was reviewed independently by two pharmacists using standard treatment guidelines. Appropriateness of dose, frequency, dosage form, route of administration and duration were reviewed for each medication. Presence of interactions (medication-medication; medication-documented diseases) were also assessed.

**RESULTS:** One hundred inmates in nine elderly care homes were selected. Mean age of inmates was 70±10.5 years and most were women (72%). Among 448 medicines, 164 medication-related errors were identified. The mean number of medication-related errors per patient was 1.64±1.23. Inappropriate dosing frequency was the highest [40.2% (66/164; 95% CI 32.7%-48.2%)] followed by missing or inappropriate medicine for the indication [31.1% (51/164; 95% CI 24.1%-38.8%)]. Rate of preventable adverse drug reactions (ADRs) were 17.7% (29/164; 12.2%-24.4%). There were eight possible clinically significant medication interactions.

**CONCLUSIONS:** Medication-related errors were common in prescriptions of inmates in elderly care homes. Services of a dedicated pharmacist may help to improve quality use of medicines among inmates in elderly care homes in Sri Lanka.

## OP - 06

**Knowledge and practice gaps related to rheumatoid arthritis and medicines used by patients with rheumatoid arthritis and their perception on related pharmacy services**

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**OBJECTIVES:** To assess knowledge and practice gaps related to rheumatoid arthritis (RA) and medicines prescribed for it, and to identify the need for specific pharmacy services, among patients attending a rheumatology clinic in a tertiary care hospital in Sri Lanka.

**METHOD:** An in house developed interviewer administered questionnaire and clinic records were used to collect data from consecutive patients with RA attending the Rheumatology clinic.

**RESULTS:** Of the 397 patients, 94% were females, 44.5% were between 46 to 60 years and 49.9% were those with rheumatoid arthritis for  $\geq 10$  years. Physical exercise (45.6%) and use of topical preparations (47.6%) were the additional treatment modalities used. Physicians were the main source of information (97.5%). Knowledge score about the disease was less than 11/15 in the majority (64.0%). Some (21.7%) believed that RA can be completely cured. The majority did not know medicine names, strengths and side effects of individual medicines used. Approximately 40% knew side effects generally for all medicines. Only 40.1% knew folic acid was given to reduce side effects of methotrexate.

Significant associations were identified between socio-demographic factors (age, level of education, income, gender) and knowledge on medications/medication use practices for certain specific medicines. The majority (82.7%) preferred to have a better interaction with the pharmacist and 87.2% stated that they would like to have counselling sessions.

**CONCLUSIONS:** This study confirms the existence of knowledge and practice gaps in the selected population. We recommend greater involvement of the pharmacy services to improve identified knowledge and practice gaps related to medicines.

## OP – 07

**Analysis of adverse drug reaction reports received by a central monitoring centre**

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**OBJECTIVES:** To analyse the adverse drug reaction (ADR) reports received by Department of Pharmacology, University of Colombo.

**METHOD:** ADR reports received from January 2014 to May 2017 were analysed for patient demography, source of reports, types of reactions, implicated medicines, severity, outcome and reporters. Anaphylaxis