

CHAPTER 5



SUMMARY AND RECOMMENDATIONS

5.1 Summary

This study identified the existence of treatment variations mainly prescribing of antibiotics for non-bacterial AURI (non-compliance with the guideline) as one of the rational drug use problems observed in the general outpatient department of King Chulalongkorn Memorial Hospital.

Of the total 200 cases reviewed during the study, 14% of AURI cases were due to bacteria and 86 % viral in origin, and overall 46 % of the cases received antibiotic treatment. Review of data has also indicated that 9 % of the children in the study sample had a history of prior antibiotic medication within three preceding days to see the doctor. Among all age groups, children below 5 years of age were found to have higher rate of prior history of antibiotic medication. Out of the total patients diagnosed with bacterial AURI, 85.7 % (24/28 cases) complied with the guideline (14.3% non compliance) whereas out of the total cases diagnosed as non-bacterial AURI, only 60.5% (104/172 cases) complied with the guideline recommendations (39.5 % non compliance) with respect to prescribing of antibiotics.

The problem of non-compliance with guideline and subsequent prescribing of an antibiotic unnecessarily should therefore be addressed critically in order to contain the wide spreading antimicrobial resistance, cost of drug

related adverse events and escalating cost of treatment of children with AURI in general paediatric department of King Chulalongkorn Memorial Hospital.

The study suggests effective implementation of the guideline for the management of AURI in children and selection of other feasible intervention(s) (educational, managerial and regulatory) to address the cost and health implications resulting from non-compliance with the guideline, and thereby promote the rational use of drugs in the hospital. It has been explained in Chapter 2 that the use of the guideline offers the potential to substantially improve drug prescribing practices by decreasing the prescription of multiple and unnecessary drugs. Compared to the present management of sick children by doctors at King Chulalongkorn Memorial Hospital, using the guideline can reduce cost of treatment, standardize treatment and improve quality of care provided for children with AURI. Reduction in the cost of treatment could conserve resources both in the health system and at household level.

Estimated associated cost of prescriptions resulting from non-compliance with recommended treatment in the guideline can be used as an evidence to show to health policy makers, management staff, prescribers, pharmacists and nursing personnel that effective implementation and compliance to the guideline could be beneficial (technical and economical) with respect to efficient use of resources, minimizing cost of treatment, unwanted adverse drug effects and containing antimicrobial drug resistance which has become a major threat to public health.

Based on the findings of this study, recommendations have been proposed for consideration and subsequent action.

5.2 Recommendations

In the context of the tragically serious short and long-run cost implications of non-compliance that confront King Chulalongkorn Memorial Hospital, this study has attempted to bring together some of the observations and various measures that need to be taken to improve compliance with standard treatment guideline used for treating AURI in children.

Based on the findings in the study, some recommendations are suggested below for consideration by the policy makers, management staff and prescribers and all stakeholders in various disciplines as applicable.

Strong commitment of health policy makers, hospital managers and physicians both from the Faculty of Medicine and the Red-Cross Society is desired and is a pre-requisite to put these recommendations into action. Implementation of the guideline and in general improvement in drug use patterns should be preceded by a change in attitude, and practice of physicians in using the clinical guideline for management of AURI in children. Specific recommendations are listed below:

1. The MOPH needs to critically examine some of the issues discussed in this study. Most of them have been clearly written in the national drug policy document. However, effective implementation of the national drug policy and assessment of its impact is necessary. The national drug regulatory authority (FDA) should review the current rules and regulations governing manufacturing, import, distribution and sale of pharmaceuticals for human use to ensure their quality, safety, efficacy and promote their rational use, priority should be given for those drugs such as cough and cold combination preparations where scientific studies have proved that their use is doubtful.
2. The national drug regulatory authority should develop appropriate strategies to effectively regulate and monitor unethical drug promotion activities in the hospitals.

3. The MOPH, should emphasise on public education especially on the merits and demerits of self-medication particularly to curtail unnecessary use of prescription drugs such as antibiotics for mild AURI.
4. The hospital should encourage physicians more to effectively implement the guideline for the management of AURI, update it on regular basis and make an impact assessment.
5. Continuing education to prescribers with more emphasis on the use of standard treatment guideline and rational antibiotic prescribing for children with AURI should be provided. Inclusion of evidence based standard treatment guidelines in the medical curricula will give an opportunity especially for medical students produced in the Faculty of Medicine and practicing in King Chulalongkorn Memorial Hospital. The existing many pharmacists available in public hospitals should be provided additional training in the area of clinical pharmacy and health economics so that they can contribute more in the ever increasing need to contain health care expenditures, improve the quality of medical and pharmaceutical care and thereby improve the overall performance of the health care system in Thailand.
6. Widen the scope and strenghten activities of the hospital Pharmacy and Therapeutic Committee to include prescription audit and feedback, disseminate objective drug information, organize continuing education programs on rational use of drugs for doctors, develop guideline for the selection of drugs for the hospital drug formulary and regulate drug promotion in the hospital.

7. Review the hospital drug formulary periodically and suggest deleting some of the unnecessary cough and cold combination preparations currently available in the hospital formulary.
8. The hospital pharmacy should provide updated list of drugs in the formulary with corresponding prices to doctors to let them know about the cost of drugs and refer for cost-effective alternative drugs. Adherence of physicians to the essential drugs listed in the formulary greatly contribute to the rational use of drugs.
9. Increase awareness of policy makers, prescribers and all health personnel on the implications of antimicrobial resistance on cost of treatment and public health. Dissemination of information to physicians and all health personnel in the hospital about the pattern of drug resistance and susceptibility should be emphasised. The national surveillance system for antimicrobial resistance should be strengthened and be in a position to widely disseminate up-to-date information on the prevailing pattern of antimicrobial resistance through appropriate media to health professionals and the public including the danger of antimicrobial resistance.
10. Development of antibiotic prescribing policy for the hospital is essential to promote appropriate use of antibiotics, contain the emergence of resistant strains of bacteria, increasing cost of health care and adverse drug events in children with AURI.
11. More research in the areas of antibiotics prescribing practices for children and factors affecting it, cost implications of antimicrobial resistance, and cost of adverse drug events in the general OPD pediatric department of King Chulalongkorn Memorial Hospital.