EXPERT PANEL REPORT 3 (EPR3)

Highlights of the 2007 Asthma Guidelines

1) **Poorly controlled asthma has a very negative impact on the lives of children.** 9.7 % of Missouri children, ~111,000 have asthma (2004, MO DHSS); more than 55,000 Missouri children take asthma medications at school (2006, MO DESE); approximately 25,000 Missouri children experience disability due to asthma (2005, Francisco & Konig)

2) **EPR3 is the result of a rigorous, systematic review of the scientific literature.** Ten committees composed of dozens of national experts spent 3 years screening 15,444 abstracts. They reviewed the full-text of 2,122 articles and judged 1,654 to contribute evidence relating to asthma best practices. Twenty evidence tables were constructed to integrate findings from 316 articles on critical topics. EPR3 recommendations are weighted by evidence level (Categories A, B, C, & D).

3) **A four component approach is effective for achieving control of asthma.**
   i) Measures of Asthma Assessment & Monitoring,
   ii) Education for a Partnership in Asthma Care,
   iii) Control of Environmental Factors & Comorbid Conditions that Affect Asthma and
   iv) Medications

4) **Assessment of severity, evaluation of control and stepwise treatment of asthma differ for three age groups - 0-4 years, 5-11 and those 12 and above.** Initiation of therapy requires assessment of asthma severity. Continuation of therapy should be based on assessment of asthma control. Use of medications should be based on evidence of effectiveness among the target age group.

5) **Inhaled corticosteroids (ICS) are the foundation of asthma pharmacotherapy.** Whereas, the treatment of Intermittent Asthma requires only SABA, preferred treatment for all levels of persistent asthma includes ICS. Comparative dose tables are available to aid in the determination of low, medium, or high dose therapy for the various age groups.

6) **Inhalation technique is critical and requires correct use of assistive devices and objective assessment of inspiratory flow rate & time for MDIs and DPIs.**

7) **Spirometric parameters improve assessment of severity, control, exacerbations and response to therapy (FEV1, FEV1/FVC ratio and PEF). Symptom reports are also useful, but under-estimate the degree of airway obstruction in many individuals.**

8) **Effective initial management of exacerbations is based on aggressive use of SABA and ipratropium, guided by reassessment & evaluation of response to therapy.**

9) **Evaluation of contributing factors (comorbidities & inhalant triggers) is essential for achieving optimal control with the lowest possible doses of medications.**

10) **Regular office visits are required to develop a partnership that enhances adherence by reassessment, mutual goal-setting, written plans and education for self-care.**

Abbreviations: MO DHSS=Missouri Department of Health & Senior Services, MO DESE=Missouri Department of Elementary & Secondary Education, MDI=metered dose inhaler, DPI=dry powder inhaler, FEV1=forced expiratory volume in 1 second, FEV1/FVC ratio=fraction of forced vital capacity exhaled in the first second, PEF=peak inspiratory flow rate, SABA=short-acting beta agonists.

Asthma Ready® Communities (2010)