

Impact of a Provincial Asthma Guidelines CME Project: The Ontario Asthma Plan of Action's Provider Education in Asthma Care Project

M.D. Lougheed, D. Moosa, S. Finlayson, W. Hopman, M. Quinn, K. Szpiro, J. Reisman

Ontario Lung Association, Toronto, Ontario

ABSTRACT

Rationale: Adherence with asthma guidelines in Canada is suboptimal. The Ontario Ministry of Health and Long-Term Care's Asthma Plan of Action funded the Ontario Lung Association to develop and implement a continuing medical education (CME) program to promote the implementation of the Canadian Asthma Consensus Guidelines in primary care.

Methods: A 3-hour workshop was developed which combines two 30-min didactic presentations by adult and pediatric asthma specialists using standardized slides, followed by two 1-hour interactive small group case discussions led by trained primary care facilitators. Outcome measures include a baseline needs assessment, workshop evaluation, and a 3-month post-reflective evaluation.

Results: 137 workshops were delivered to 2133 primary care providers (1007 physicians, 1126 allied health) between September 2002 and March 2005. 291/506 (60%) and 302/513 (59%) physicians submitted adult and pediatric needs assessments respectively. At baseline, 9.7% and 8.5% of medication plans for chronic management were inappropriate respectively and only 192 physicians (29.9%) completed a written action plan form correctly. 2133 participants (1007 physicians, 1126 allied health) submitted workshop evaluations. They rated the adult and pediatric presentations as relevant to family medicine (4.66 ± .58 and 4.66 ± .59 respectively; Mean ± SD; 1=strongly disagree and 5=strongly agree) and found the case discussions valuable (4.45 ± .77; 4.54 ± .68 respectively). Preferred learning format was multi-disciplinary lecture and case discussions were preferred by 59.2% of allied health and 42.5% of physicians (p<0.001). Post-reflective evaluations revealed 88.7% remained very satisfied with the workshop, 94.4% reported increased confidence, 91.9% reported an influence on practice and 67.2% reported including a written action plan into their practice. 98.4% of participants indicated they would recommend the workshop to a colleague.

Conclusions: Asthma management knowledge deficits exist among primary care providers in Ontario. Participants in this novel highly-rated province-wide multi-disciplinary asthma CME project reported important improvements in asthma care, including use of a written action plan.

BACKGROUND

Asthma affects approximately 12% of children and 7% of adults in Canada. In response to rising concerns regarding asthma morbidity, the Ontario Ministry of Health and Long-Term Care implemented a provincial 'Asthma Plan of Action' (APA) in January, 2002. The goal of the APA is reduce mortality, morbidity and costs associated with asthma by focusing on 3 areas: prevention and health promotion, management, and research including surveillance. The current project is one of 14 projects funded by the APA. The Ontario Lung Association (OLA) was funded to develop a Continuing Medical Education (CME) program to promote the implementation of The Canadian Asthma Consensus Guidelines in Primary Care.

PURPOSE

- 1) To determine primary care providers baseline asthma knowledge and skills needs
- 2) To determine preferred CME format of primary care providers
- 3) To evaluate the workshop (content and format) and its impact on practice patterns of attendees.

METHODS

- Literature review of guidelines dissemination
- CME program designed by Steering committee (pediatric and adult respirologists, family physician, OLA Asthma Program Manager, certified asthma educators):
 - 3 hour evening workshop format (1.5 hours each on adult and pediatric asthma):
 - 1/2 hour didactic session by specialist
 - 1 hour interactive case discussions led by trained primary care facilitator
 - Standardized slide kit for specialist presenters
 - Facilitator guide
 - Specialist presenters and facilitators recruited largely from OTS membership
 - Primary care practitioners experienced in group facilitation sought locally
- Accredited by Ontario College of Family Physicians (3 MainPro C CME credits)
- Workshop evaluation
- Baseline needs assessment and 3 month post-reflective evaluation (required for Main Pro C CME credits by physicians):
 - informed consent for these data to be used for research
- Delivered 137 workshops in target Ontario communities over 3 years

STATISTICAL ANALYSIS

Data were summarized as frequency responses and Mean ± SD. Differences between groups were determined by unpaired t-tests and Chi-squared analyses.

RESULTS

A total of 2783 health care providers (1313 physicians, 1470 allied health) attended 137 workshops between September 2002 and March 2005. A subset of physicians who submitted evaluations and provided consent to use this data for research (n=291 adult and 302 pediatric needs assessments respectively; n=392 post-reflective evaluations).

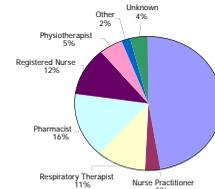
Study Sample

	Workshop Evaluations		Needs Assessments				Post-Reflective Evaluations	
	Submitted, n (%)	Submitted, n (%)	Pediatric		Adult		Submitted, n (%)	Consent, n (%)
Physicians	1007 (76.7%)	506 (39%)	298 (59%)	500 (38%)	288 (58%)	547 (42%)	335 (61%)	
Allied Health	1126 (76.6%)	7	4	6	3	128 (9%)	57 (45%)	
TOTAL	2133 (76.6%)	513 (18%)	302 (59%)	506 (18%)	291 (58%)	675 (24%)	392 (58%)	

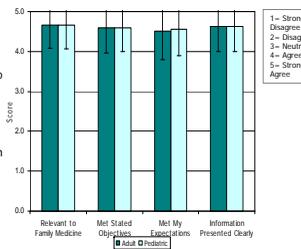
† % of attendees; ‡ % of those who submitted responses ("Participants")

Workshop Evaluations (n=2133)

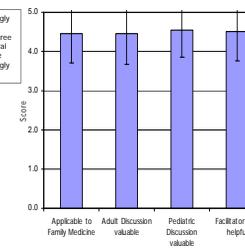
Health Care Profession of Respondents



Didactic Presentations

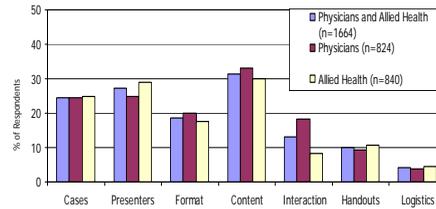


Case Discussions



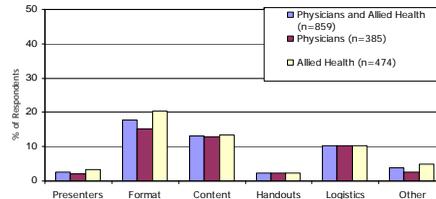
Strengths of Program

• 1664 (78.0%) respondents identified a strength of the program



Weaknesses of Program

• 859 (41.2%) respondents identified a weakness of the program



Preferred CME Format (n=2133; 1007 Physicians and 1126 Allied Health)

	Didactic Expert Presentations (%)	Interactive Case Discussions (%)	Combination (Didactic & Interactive) (%)
Physicians	13.7	8.3	78.5
Allied Health	15.5	4.4	80.1

Preferred Learning Format

Discussion	Physicians (n=424)		Lecture	
	Separate (%)	Combined (%)	Separate (%)	Combined (%)
	20.3	3.5	20.3	42.5

Discussion	Allied Health (n=578)		Lecture	
	Separate (%)	Combined (%)	Separate (%)	Combined (%)
	10.2	1.9	10.2	20.9

Recommend Workshop to a Colleague

• 98.4% of both physicians and allied health indicated they would recommend this workshop to a colleague.



Baseline Needs Assessments (n=291 and 302 for adult and pediatric assessments respectively)

- Knowledge of Asthma Control Parameters
- 88.7% correctly identified poor asthma control (adult case)
- 81.8% were able to list asthma control parameters (adult case)

Differential Diagnosis

- 96.5% of 288 respondents were knowledgeable of at least one way to differentiate between asthma and COPD in adults
- 99.0% of 299 respondents listed at least one correct differential diagnosis of asthma in children

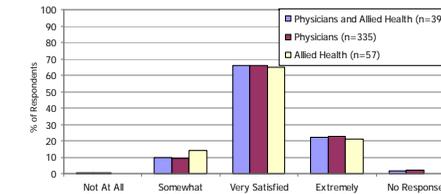
Ability to Design a Management Plan (n=289 and 284 for adult and pediatric assessments respectively)

	Adult Case (%)	Pediatric Case (%)
Addressed non-pharmacologic management	97.6	82.5
Addressed pharmacologic management	95.2	82.1
Pharmacologic management incorrect	9.7	8.5
Attempted written action plan	83.2	
Used action plan form provided	63.6	
Written action plan form completed correctly	37.1	

Post-Reflective Evaluations (n=392; 335 Physicians and 5 Allied Health)

Overall Satisfaction with Workshop

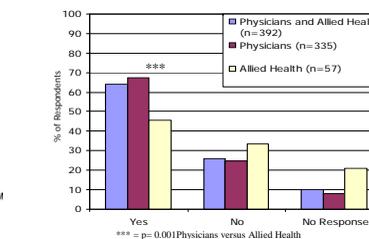
• Mean (SD) score: 3.15(0.61)



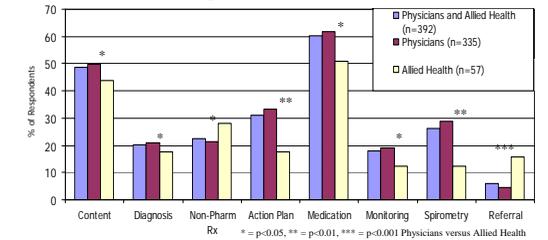
Overall Confidence Levels:

• 94.4% of 389 physicians and allied health indicated that their confidence level in the management of asthma had increased.

Written Action Plan Use



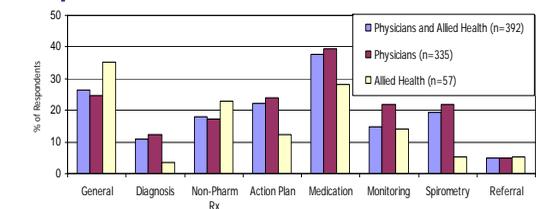
Helpful Learning Points



Helpful Learning Points: Medications

Specific medications identified include the following (% represents responses from the entire sample of both physicians and allied health): Inhaled corticosteroids: 30.4%; Prednisone: 4.3%; Long-acting beta₂-agonists: 17.6%; Anti-leukotriene: 6.9%; Combination inhaled corticosteroid/ long-acting beta₂-agonists: 3.8%; Short-acting beta₂-agonists: 4.1%; Medication devices/spacers: 2.8%

Reported Influence on Practice



Reported Influence on Medication Use:

Specific medications identified include the following (% represent responses from the entire sample of both physicians and allied health): Inhaled corticosteroids: 17.1%; Prednisone: 1.0%; Long-acting beta₂-agonists: 12.5%; Anti-leukotriene: 4.3%; Combination inhaled corticosteroid/ long-acting beta₂-agonists: 2.6%; Medication devices/spacers: 1.8%

CONCLUSIONS

- 1) Primary care providers attending this workshop demonstrated needs for improved asthma knowledge and skills, particularly medication plans for chronic management and creation of written action plans.
- 2) The majority of participants (>78%) preferred a CME format which combines expert process and facilitation, but only 42% of physicians and 59% of allied health care providers prefer multi-disciplinary lectures and case discussions.
- 3) Participants rated this provincial asthma CME program highly, would recommend it to a colleague, and remained satisfied with the workshop 3 months later.
- 4) Reported impacts 3 months following the program include:
 - improved confidence in asthma management
 - altered medication prescribing patterns
 - increased use of spirometry for diagnosis and monitoring
 - increased use of written action plans

IMPLICATIONS

This program may lead to improvements in primary health care provider asthma practice patterns and improved patient outcomes. Similar programs should be considered as part of multi-faceted asthma guidelines dissemination and implementation.

Funding provided by the Ministry of Health and Long-Term Care, Government of Ontario