

Appendix 1: GLOSSARY OF TERMS

Barrier:	Personal or system block to implementation of new knowledge
Best practices:	The highest standard applied
Desired results:	Best practices and what learners will apply based on knowledge gained from the educational activity
Gap:	Real or perceived need for improvement in practice, knowledge, and/or patient outcomes
Intervention:	The content of the learning activity and the educational/instructional methods by which content is addressed
Competence:	Ability to apply the knowledge to a practice-based situation
Outcomes:	The ability of the learner to apply (1) knowledge, (2) adopt new strategies to apply knowledge to practice, (3) real or anecdotal impact on patient outcomes
Performance:	Skills, ability and strategies that one has implemented in practice

Appendix 2

Planning Questions for CME Activity Development (GAPS)

The new ACCME Criteria require that each activity utilize learner GAPS in the planning of the activity. The GAPS should be the foundation on which the activity is built. Documentation of GAP use is required.

Learner GAPS are simply the difference between what the cohort of learners DO NOW vs. what we would like them to do (also known as BEST PRACTICES) as a result of the CME activity.

Learner GAPS are demonstrated in a number of ways. To identify GAPS, you can ask one, or several of the following questions:

1	What has changed in the practice of medicine over the past year which would merit educational interventions to focus on that issue?
2	Have there been changes in practice suggesting there is a need for clinicians to improve their skills in order to perform better?
3	Is there breaking research that physicians will find interesting and medically relevant to the quality of care they provide for their patients? What are the educational strategies that will expedite the translation of the research to practice?
4	Are there traditional core performance areas that are worth reinforcing and updating?
5	What are the statistics and/or findings that indicate, or infer that there is a GAP between how clinicians diagnose or manage patient outcomes versus how they should diagnose or manage patient problems?
6	Have there been recent patient incidents concerning safety and efficacy that would merit iteration?

Appendix 4A: Writing Objectives -- A Guide

This guidance is intended to assist you in writing measurable objectives for your CME application.

Measurable objectives state:

- *Who is involved*
The people whose behaviors, knowledge, and/or skills are to be changed as a result of the program.
- *What are the desired outcomes*
The intended behavior, knowledge, and/or skill changes that should result from the program or activities.
- *How progress is measured*
What tool or device (surveys, tests, data from other sources) will be used to measure the expected changes.
Remember you need to ensure that your department has the resources/capacity (time, staff, funding, etc.) to perform the measurement.
- *Proficiency level*
Identify the criteria for success.
- *When will the outcome occur*
Identify the time frame for success

Example: By December 2010, tobacco use will decrease to 10% of patients seen as reported on a prevalence survey.

Who: all adult patients

How measured: as reported on a prevalence survey

What: Decrease tobacco use

Proficiency level: to 10%

When: By December 2010

Tips on Writing

Most objectives need to have three components as follows:

- A measurable verb (also known as performance)
- The important conditions (if any) under which the performance is to occur and
- The criterion of acceptable performance

Objectives Worksheet

Directions: Write your goal, then for each objective in the space provided write who is involved; what the desired outcomes are; how progress will be measured; when the outcome will occur and the proficiency level. Next put the pieces together into a sentence. Finally, use the checklist to ensure that the objectives contain all necessary components. Use a new worksheet for each goal.

Goal: _____

Objective 1:

Who: _____
What: _____
How: _____
When: _____
Proficiency Level: _____

Written Objective: _____

Objective 2:

Who: _____

What: _____

How: _____

When: _____

Proficiency Level: _____

Written Objective: _____

Objective 3:

Who: _____

What: _____

How: _____

When: _____

Proficiency Level: _____

Written Objective: _____

Appendix 4B: Verbs for Writing Learning Objectives

Some Verbs for Use in Stating **Cognitive** Outcomes

<u>Knowledge</u>	<u>Compre- hension</u>	<u>Application</u>	<u>Analysis</u>	<u>Synthesis</u>	<u>Evaluation</u>
define	discuss	compute	distinguish	diagnose	evaluate
list	describe	demonstrate	analyze	propose	compare
recall	explain	illustrate	differentiate	design	assess
name	identify	operate	compare	manage	justify
recognize	translate	perform	contrast	hypothesize	judge
state	restate	interpret	categorize	summarize	appraise
repeat	express	apply	appraise	plan	rate
record	convert	use	classify	formulate	choose
label	estimate	practice	outline	arrange	decide
		predict		organize	

Some Verbs for Use in Stating **Affective** Outcomes

<u>Receiving</u>	<u>Responding</u>	<u>Valuing</u>	<u>Organization</u>	<u>Value Complex</u>
sit erect	answer	join	adhere	act
reply	greet	share	integrate	practice
accept	read	complete	organize	discriminate
show	report	follow		influence

Some Verbs for Use in Stating **Psychomotor** Outcomes

<u>Perception</u>	<u>Set</u>	<u>Guided Response</u>	<u>Mechanism</u>	<u>Complex</u>	<u>Adaptation</u>	<u>Origination</u>
identify	react	display	display	display	adapt	create
detect	respond	manipulate	manipulate	manipulate	revise	compose
differentiate	start	work	work	work	change	arrange
		perform	write	operate		

Bad words that should not be used as cognitive objectives!

know	really know	understand	appreciate	become
learn	thinks critically	approach	improve	grow
increase	expand horizons	grasp the significance of		

Appendix 5: Educational Outcomes Constructor

Use the tables below to construct educational outcomes measurements that match the results designation for this activity:

Measurement of Competence—OPTION 1 (case studies or vignettes and questions that measure <i>application</i> of knowledge to practice)									
WRITE A CASE STUDY OR VIGNETTE BELOW (see Appendix 6 for a sample case study)	WRITE MULTIPLE CHOICE QUESTIONS FOR LEARNERS TO ANSWER RELATED TO THE CASE AND INDICATE CORRECT ANSWER WITH ASTERISK (*)								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #000080; color: white;"> <th style="width: 65%;">Question</th> <th>Answer Choices</th> </tr> </thead> <tbody> <tr> <td style="height: 30px;"></td> <td style="text-align: left; padding: 2px;">A. B. C.</td> </tr> <tr> <td style="height: 30px;"></td> <td style="text-align: left; padding: 2px;">A. B. C.</td> </tr> <tr> <td style="height: 30px;"></td> <td style="text-align: left; padding: 2px;">A. B. C.</td> </tr> </tbody> </table>	Question	Answer Choices		A. B. C.		A. B. C.		A. B. C.
Question	Answer Choices								
	A. B. C.								
	A. B. C.								
	A. B. C.								
Measurement of Competence—OPTION 2 (using question pairs—add rows as needed)									
PRE-ACTIVITY QUESTION: How often do you <u>currently</u> use each the following patient care strategies? (1=never to 5=always)									
<insert strategy 1>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
<insert strategy 2>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
<insert strategy 3>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
<insert strategy 4>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
QUESTION TO ASK AT END OF ACTIVITY: Based on your participation in this CME activity, how often do you <u>now plan</u> to use each the following patient care strategies? (1=never to 5=always):									
<insert strategy 1>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
<insert strategy 2>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
<insert strategy 3>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
<insert strategy 4>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5								
Measurement of Performance 3 Months Post-activity (follow-up questions—add or delete rows as needed)									
Question 1									
Question 2									
Question 3									
Question 4									
Measurement of Patient Outcomes (may be self-reported and anecdotal)									
Please describe 2 patient outcomes you've observed based on patient use of <insert specific interventions the activity recommended to learners>:									
Recommended Intervention 1	Physician-Learner's Observation								
Recommended Intervention 2	Physician-Learner's Observation								

Appendix 6

EXAMPLE OF A CASE STUDY USED TO MEASURE IMPROVEMENT IN COMPETENCE IN A CME ACTIVITY

A mildly hypertensive and anxious 72 year old women presents at your office with her 78 year old husband. She accuses her husband of beating her and stealing her money. Upon examination, you find no evidence of any trauma or bruising. You perform a Mini Mental State Exam (MMSE) and she scores 24 out of 30. You continue to engage the patient and ask her to complete a Clock Drawing Test. She successfully completes the task. You engage her in conversation and you ask her to tell you what her plans are for Christmas. She gives a basic answer and doesn't elaborate. You sequester the husband and question him about his wife's claims. He denies any abuse—physical, emotional or financial—but complains of his wife's outrageous suspicions. What do you do?

- A. Nothing. This is the first claim and you reassure them that everything is fine. Ask to see them again in two weeks.
- B. Document her claim and refer the husband and wife to social services.
- C. Initiate the lowest dose of an anxiolytic and a cholinesterase inhibitor. Ask to see her and her husband again in one month but with separate appointments.
- D. Order the following blood work for her: CBC, electrolyte panel, calcium, SUN, creatinine, glucose, vitamin B12, thyrotropin, and a MRI (American Academy of Neurology).
- E. B and C
- F. B and D

[Correct answer=F]