PGY3 Learning activities-10 minute EBCP consultation

Third year residents will participate in the same small group sessions as PGY2s and will provide a "10 minute EBCP consultation":

- This will be a summary of available evidence to answer a clinical question/dilemma, developed by the resident (see example below). The question should answer a clinically relevant topic, associated with some degree of uncertainty, in order to engage the group in discussion.
- Residents should discuss the clinical dilemma and provide their sources of information in detail (which may include guidelines, recommendations, expert opinion, pre-appraised studies etc). This will enable residents to become familiar with different sources of clinical evidence and understand their advantages and limitations.
- During this exercise, residents will likely come across different opinions and ratings of the evidence as well as various practice recommendations and will attempt to reconcile those in their presentation.
- Evidence should be discussed in a concise manner, indicating its overall quality as well as limitations.
- Finally, residents should provide a recommendation/bottom line regarding the applicability of available evidence to their clinical dilemma.
- Brief description of some resources available through the Health Science Library:

1. **BMJ Clinical Evidence, ACP PIER modules and UpToDate** provide summaries of evidence categorized by disease/disorder. This allows one to search for evidence on multiple interventions (screening, diagnosis, therapy etc) regarding the same disorder. The uptake of recent studies by these resources may not be immediate, so searching for individual trials may still be necessary.
2. **Clinical Evidence** categorizes the interventions as beneficial, likely to be beneficial, trade off between benefits and harms, unlikely to be beneficial, likely to be ineffective or harmful and unknown

effectiveness. This is based on their assesment of available evidence. Further description of each category is available online.

3. **UpToDate** uses the GRADE system to rate the quality of evidence and provide recommendations:

Recommendation	Quality of Evidence
Grade 1: Strong (most patients will benefit)	A: High-quality (multiple high quality RCTs or systematic reviews)
Grade 2: Weak (balance of benefits and harm close or uncertain)	B: Moderate-quality (RCTs with limitations or high quality observational studies)
	C: Low-quality (poor quality observational data, expert opinion or RCTs with major flaws)

4. **The Cochrane database** provides among others, systematic reviews prepared by the Cochrane Collaboration (Cochrane Database of Systematic Reviews-CDSR), systematic reviews prepared by others (Database of Abstracts of Reviews of Effects-DARE) and a large database of RCTs (Cochrane Central Register of Controlled Trials-CENTRAL).

5. **TRIP database** allows search for all levels of evidence (synopses, systematic reviews, pre-appraised and original studies). It also provides a filter to enable search for only high quality evidence.

6. **ACP Journal Club** provides structured abstracts of original studies along with expert commentary.

7. **MEDLINE** is a vast but relatively unfiltered source of original studies but also of systematic reviews, practice guidelines etc.

EVIDENCE BASED CLINICAL PRACTICE

PGY3 10 MINUTE EBCP CONSULT

Topic for discussion

What is the role of direct renin inhibitors (DRIs) like Aliskiren in primary care?

Literature search

	Experts	UpToDate	Clinical Evidence	Cochrane Database	PIER modules	TRIP Database	ACP Journal Club	MEDLINE	Other
Recommendations		+			+				
Guidelines									
Summarized evidence		+				+			
Systematic reviews				+ (2008)					
Abstracts		+							
Original studies									
Other			Nothing found				3 citations	494 citations!!!	

Summary of Evidence

- DRIs (Aliskiren) have been studied for the treatment of HTN and Diabetic Nephropathy.
- Hypertension: a 2008 Cochrane systematic review found 6 studies of Aliskiren vs Placebo and concluded that Aliskiren is superior to placebo in terms of lowering blood pressure. Indirect and direct comparisons provided by other studies, show similar BP lowering effect to commonly used antihypertensives. In one small study, referenced in UpToDate, Aliskiren 300mg was found to be slightly superior to HCTZ 25mg in terms of BP lowering effect.
- Diabetic Nephropathy: Only one trial is available regarding DRIs and diabetic nephropathy. The study showed a 20% reduction in urine albumin to creatinine ratio with the combination of aliskiren + losartan vs losartan alone

Quality of Evidence

HTN: Multiple RCTs, Level of Evidence A *
Diabetic nephropathy: One RCT with surrogate outcomes, Level of Evidence B *

Bottom line/recommendations

- DRIs (Aliskiren) are effective for the treatment of HTN although not clearly superior to other, cheaper antihypertensives
- More studies are needed to define the role of DRIs in diabetic nephropathy.
- Risk of hyperkalemia may be significant, especially when DRIs are used in combination with other RAS blockers.

Reviewed By: Andreas Achilleos Date: 5/20/11