

Editorial

## Meta - Analysis: Old Bottles But New Wine?

*Though the concept of meta-analysis was proposed almost two decades ago it is only in the last decade that clinicians are beginning to be hit by the results and implications of this new way of looking at old data. In short, what we are doing is pooling old studies which in themselves were not definitive or had inadequate numbers or conflicting results on any aspect of medicine; particularly treatment modalities, and, lo and behold! We have a large, impressive, powerful and statistically significant study which tells us clinicians exactly what to do! While it may sound too good to be true, clinical medicine has been changed rapidly and in a short period by the magic of Meta-Analysis.*

*The statisticians tell us that if very strict criteria are followed and critical peer review is applied, there are few chances of bias and the validity to real life remains intact. The initial impressions are all good from all quarters. And, while meta-analyses have been the 'in thing' in cardiology for some time, almost every speciality has now been hit by this fad.*

*Are there problems that clinicians should be aware of? Ofcourse, there are! But, the statisticians have an answer for every one of them so far! However, not being a very smart person myself, I am always put on guard when the 'geniuses' of the abstract world tell us 'working people' about these new panaceas for all our problems. This is especially acute when the poor clinician toils in the real world and comes up with what the statisticians tell him is 'poor stuff' and inconclusive results and then the same statistician takes the same 'poor stuff' and with the magic of meta-analysis turns several such poor studies into one big, definitive 'state of the Art stuff' with one tap of the computer key without even having to move from his table! Am I sounding hurt? Ofcourse I am! Tell me a*

*hundred reasons and give me a thousand formulas but unhealthy small studies can't turn all that robust when pooled together. However good meta-analysis may look on paper, we must remain skeptical until more proof comes in.*

*I am in no way suggesting that one should discard meta-analyses. This is a good stop gap measure that guides the physician until more definitive data is forthcoming. However, it should in no way lull the medical community into thinking it has the correct answer and postpone planning appropriate, large, prospective, controlled and tightly run trials to advance our knowledge and evolve better therapies.*

*An interesting observation one can make in the case of meta-analyses in coronary artery disease is that almost every therapy analysed seems to lower mortality by a quarter! Be it aspirin, thrombolysis, beta-blockers, exercise, anticoagulants, I/V nitrates etc. One wonders if this reduction of mortality by a quarter is a limitation imposed by the nature of the coronary disease or the nature of the (meta) analysis! However, I hope that one of these days someone will be able to tell us that combining four or five of these above mentioned treatment modalities have reduced the mortality of heart attacks to Zero! I hope when such an analysis is published, someone will care to go to the wards and the c.c.u. and see what is actually happening to our patients.*

*Well, facetiousness aside, I think new knowledge must be allowed fairplay. The world has been used to having old wine delivered to it in new bottles. For a change let us see how well the technique of delivering new wine out of old bottles serves us!*

*Azhar Faruqui  
Editor.*