Cardiovascular: Coronary Heart Disease – Closing the Treatment Gap

In a previous article ('Cardiovascular – Coronary Heart Disease – The Treatment Gap") we considered the gap that exists between clear evidence based guidelines for the management of patients with two major cardiovascular disease (CVD) risk factors (high blood pressure and high cholesterol) and the care that they are receiving. Many patients at risk of CVD who should be receiving treatment are not, while many others who are on treatment are not receiving treatment in line with recommendations. In this article we consider how such a gap can be closed.

However, before we can attempt to answer the question of how to close the gap, we have to look at why such a gap exists in the first place. In 2002, the Reassessing European Attitudes about Cardiovascular Treatment (REACT) survey was undertaken. The survey was designed to assess the views, and perceived implementation, of coronary heart disease and lipid treatment guidelines among primary care physicians. Just over 750 primary care physicians in 5 European countries were surveyed. Most physicians (89%) agreed with the content of current guidelines and 81% reported use of them. However, only 18% of physicians believed that the guidelines were being implemented to a major extent, indicating a problem with either their understanding or implementation. Key barriers to greater implementation of guidelines were seen as lack of time (38% of all physicians), prescription costs (30%) and patient compliance (17%).

The REACT survey also sought the opinions of primary care givers on how to improve implementation of guidelines. Their suggestions centred on more education both for physicians and patients. Perhaps the two most important means by which improved use of treatment guidelines can be achieved are (1) improving the understanding of the basic concepts that underpin the guidelines and (2) reducing the number and complexity of the main messages. (Turnbull (2005))

Improvements in the understanding of such basic concepts could be achieved by adopting an "absolute risk" approach to the management of patient care. Such an approach accepts the probability of a patient developing a cardiovascular event over a specified time period, and acknowledges that the presence of small or moderate elevations of multiple risk factors often confer greater risk of CVD than an extreme elevation of a single risk factor. Fiona Turnbull from the George Institute for International Health believes that understanding the concept of absolute risk is crucial and that clinicians have to move away from making decisions about treatment based on a single risk factor. This would, of course, require a paradigm shift in the way that clinicians have traditionally determined courses of treatment.

As Turnbull also notes "the nature of the association between blood pressure, cholesterol, and cardiovascular disease implies that a given reduction in the level of the risk factor, regardless of baseline level, will reduce cardiovascular risk by a constant proportion." If interventions to lower blood pressure, serum cholesterol and other risk factors reduce the risk of CVD regardless of initial levels, it follows "that the goal is not to normalize risk factors but to reduce them as much as possible. This means targeting everyone at high risk, as determined by age or known CVD rather than by the level of the risk factors". (Law and Wald (2002))

Therefore, by adopting this approach of "the lower, the better", blood pressure lowering drugs should not be limited to people with high blood pressure, nor cholesterol lowering drugs to people with high serum cholesterol concentrations. The constant proportional relation means that there is value in modifying risk factors in people at high risk, whatever the reason for the high risk and regardless of the level of the risk factor. (Law and Wald (2002)) Recent trials have validated such an approach with regard to both blood pressure and cholesterol management. (The Lancet 362 and Larosa *et al.* (2205)) As concluded with the blood pressure trials reported in the Lancet "treatment with any commonly-used regimen reduces the risk of total major cardiovascular events, and larger reductions in blood pressure produce larger reductions in risk."

If the treatment gap is to be closed, then adopting an absolute risk based approach to cardiovascular disease prevention may indeed be the key.

References:-

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