7. Summary and Conclusion

- Patients in India, who have Acute Coronary Syndrome (ACS) have a higher rate of ST-elevation MI than the patients in developed countries. Since most of these patients are poor, less likely to get evidence-based treatments, and have higher 30-day mortality, improving access to healthcare facilities and of affordable treatments can reduce morbidity and mortality.

- Socioeconomic environment influences occupation, lifestyle, and nutrition of social classes which in turn would influence the prevalence and profile of ACS. In India, there are wide social and economic disparities. Free healthcare facilities are available for the economically backward classes, but due to low level of education and occupational problems, these facilities are not always utilised optimally.

- There are a number of studies on the cost treatment in patients with ACS from the developed countries very few from the developing countries. All expenditure incurred for the direct cost is met out-of-pocket by the patients. The treatment of ACS is expensive for a very large proportion of patients in developing countries like India.

- The model of the study was prospective, observational, cost effectiveness analysis of BMS and DES used in the treatment of ACS with PCI. The quality of life studies data was collected from the patients at Kasturba Hospital, Manipal, a tertiary care hospital. The patients were treated with BMS and DES. The instrument to measure health status was EQ-5D-5L involving English and Kannada version. The permission to use the above instrument was obtained by requesting the Euro QoL group and informing them that the instrument is used for research in an academic institution. The ethics committee reviewed the protocol and approved the same for administering the study. Manipal University Ethics Committee approval was taken for the study and informed consent was obtained from the patient/patient party for enrolment in the study.

- The mean age of patients for BMS was 57.79 ± 9.267 years and for DES was 60.65 ±10.103 years. The gender wise distribution Male /Female in BMS was 79.3% / 20.7% and in DES was 80.4%/19.6%; The Domicile distribution for Rural/ Urban in BMS 72.4%/27.6% and DES 70.1%/29.6%;

- Repeated measures ANOVA of utility scores and VAS scores showed significant variation in both groups over a period of one year follow-up. Chi-square test showed no significant difference in the myocardial infarction, stent thrombosis and death among both the groups of patients.
Cost consequence analysis, cost-effectiveness analysis and incremental cost effectiveness analysis ware done. The cost consequence analysis showed that total cost incurred was INR 68,374 for BMS and INR 1,21,883 for DES and the consequences are VAS, MI, ST and death. The quality adjusted life years (QALY) was calculated form the utility scores obtained from the EQ-5D-5L questionnaire and further used to calculate the cost effectiveness ratio. The incremental cost-effectiveness ratio for one unit of QALY was INR 222954, for one VAS score was INR 7688 and for one life saved was INR 52979.

The study brings about the current scenario of patients undergoing PCI form perspectives of patients, provider, third party reimbursements and governments. This study does not include the patients from defence department and their family who are directly paid by the Government as a package benefit to their services. The humanistic outcomes has brought about the issues and challenges faced by patients and it also attempts to communicate different stakeholders’ about opportunities in improving the quality of life of the patients. For example, the HRQoL can be improved by designing and delivering robust patient education and pharmaceutical care programme for the discharged patients. This would prevent the rates of readmission of the patients for similar treatments. The ultimate objective of the proposed discharge programme should aim at self-management of the condition of the patient. The investment into these programmes can be collected during the treatment and funded.

Economic outcomes have clearly given an insight into the itemised costs of various inputs which can be shared by the patients, hospitals, third party reimbursements and government. The patient can plan and decide upon in a rational way, depending on individual capacity, whether he has to go for BMS or DES. The hospitals can use the cost analysis to get an idea of the price and compete with the peers to emerge as a preferred destination for patients. The insurance regulatory and development authority of India (IRDA), the regulatory and promotional body, enacted insurance bill which will promote the growth of health insurance in the country. There will be large number of health insurance products available to public. Health insurance principle dictates that the funds generated should be able to contain reimbursements and earn profits. They will influence competitiveness for cost effective treatments for the policy holders. They may put a ceiling of reimbursement to the corporate hospitals. This would make hospitals to offer services in cost effective manner. The primary data and the analysis will be highly useful in developing health insurance product for PCI therapy.
The epidemiological survey and registries of cardiac diseases of angina and MI will be able to forecast the number of PCI interventions possible in one year. The finding of this thesis of clinical, humanistic and economic outcomes can be utilised in budget planning and resource allocations for the patients, likely to be utilising PCI by the government schemes. Overall application of finding of the thesis will rationalise the treatment and will offer an opportunity to decide upon which type of stents can be chosen for a patient depending on socio-economic and resources availability.