



**2nd Healthcare and Pharmacoeconomics Symposium (HPES 2019)
22-23 March, Riyadh, Saudi Arabia
Accepted Abstracts**

Date of online publication: 20 April 2019

Ziyad S. Almalki et al.

Systematic Review and Meta-Analysis to Compare Effectiveness of Intensive Blood Pressure Lowering Treatment vs Less Intensive Treatment at High Risk Patients

Ziyad S. Almalki¹, Faisal Alzahrani¹, Yazeed Alsubaihi¹

¹ Department of Clinical Pharmacy, College of Pharmacy, Prince Sattam Bin Abdulaziz University, Al-Kharj, Riyadh, Saudi Arabia.

Introduction:

Blood pressure goals in people with high risk of cardiovascular disease have been extensively debated over the past few years. The most recent hypertension guidelines recommended intensifying the blood pressure treatment in this population. However, it is not clear whether this change would provide a cardiac protection against cardiovascular events. We aimed to investigate if intensive compared with standard blood pressure control is associated with reduced cardiovascular events risk.

Materials & methods:

In this study, we systematically searched MEDLINE, for trials published until October 3, 2018. We included randomized controlled trials that are comparing intensive versus less intensive blood pressure treatment strategy. No language restrictions were made. We performed a meta-analysis to assess reductions on odds ratio (OR) of cardiovascular events.

Results:

Seventeen clinical trials involving 51,806 patients, in whom 3,320 cardiovascular events were documented over the mean of follow-up of 2.8 years (range 0.4–5.3 years). Our findings presented that intensive blood pressure treatment strategy provide OR reductions for myocardial infarction (8% [0–22]), stroke (11% [0–22]), heart failure (16% [1–30]), and cardiovascular death (28% [16–39]).

Conclusion:

In high-risk patients, intensive blood pressure treatment strategy provided better vascular protection than less intensive strategy. It significantly reduced overall and heart failure events with the greatest benefit seen in cardiovascular death.

How to cite this abstract:

Almalki Z, Alzahrani F, Alsubaihi Y. Systematic Review and Meta-Analysis to Compare Effectiveness of Intensive Blood Pressure Lowering Treatment vs Less Intensive Treatment at High Risk Patients. Glob J Med Therap 2019, 1:7-8

Copyright: This is an open access journal published under the Creative Commons Attribution Non Commercial License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction, provided the original work is properly cited and its authors credited.



**2nd Healthcare and Pharmacoeconomics Symposium (HPES 2019)
22-23 March, Riyadh, Saudi Arabia
Accepted Abstracts**

Date of online publication: 20 April 2019

Ziyad S. Almalki et al.

Projected Clinical and Cost-Effectiveness of More Intensive Blood Pressure Treatment in Patients with High Risk of Cardiovascular Disease in Saudi Arabia: A Modelling Study of Meta-Analysis

Ziyad S. Almalki¹, Bader J. Almaklefi¹, Suliman A. Alfaiz¹, Omar Almohana¹, Yasser S. Alsaidan¹, Abdullah Q Alanezi¹
¹Department of Clinical Pharmacy, College of Pharmacy, Prince Sattam Bin Abdulaziz University, Al-Kharj, Riyadh, Saudi Arabia.

Introduction:

The current literature suggests that more intensive blood pressure (BP) treatment is clinically more effective than less intensive treatment in patients at high risk for cardiovascular disease (CVD). In this analysis, we evaluated the potential clinical benefit and cost-effectiveness of more intensive BP treatment in patients at high-risk CVD over their lifetime.

Materials & methods:

A Markov state-transition model was developed for the BP strategies to estimate the lifetime incremental cost-effectiveness ratio (ICER) per quality-adjusted-life-year (QALY) using evidence published from a meta-analysis. The other model inputs were retrieved from previous studies. Estimated costs were collected from five hospitals in Riyadh. The model used a lifetime framework adopting Saudi payer perspective and applied a 3% annual discount rate. Sensitivity analysis was conducted using one-way and probabilistic sensitivity analysis (PSA) to evaluate the robustness and uncertainty of the estimates.

Results:

Treating 10,000 patients with high CVD risk with more intensive BP therapy would avert a total of 3,470 CV events over their remaining lifetimes as compared with less intensive strategy. The projections showed that more intensive BP therapy would be cost-effective compared to the less intensive strategy with incremental costs per QALY of \$6,247. Probabilistic sensitivity analysis suggested more intensive control would be cost-effective compared with less control BP at 83% of the time.

Conclusion:

The result of this study showed that more intensive BP treatment appears to be a cost-effective choice for patients with high risk of CVD in Saudi Arabia when compared with less intensive BP strategy. Thus, this findings provide strong evidence for the adoption of this strategy within the Saudi healthcare system.

How to cite this abstract:

Almalki Z, Almaklefi B, Alfaiz S, Almohana O, Alsaidan Y, Alanezi A. Projected Clinical and Cost-Effectiveness of More Intensive Blood Pressure Treatment in Patients with High Risk of Cardiovascular Disease in Saudi Arabia: A Modelling Study of Meta-Analysis. Glob J Med Therap 2019, 1:7-8

Copyright: This is an open access journal published under the Creative Commons Attribution Non Commercial License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction, provided the original work is properly cited and its authors credited.



**2nd Healthcare and Pharmacoeconomics Symposium (HPES 2019)
22-23 March, Riyadh, Saudi Arabia
Accepted Abstracts**

Date of online publication: 20 April 2019

Mohamed M. Elsaadany et al.

Improving Antibiotic Prophylaxis Practice in Gynecological Operations At Al-Rafie Hospital

**Mohamed M. Elsaadany
Medication Services Department, Al-Rafie Hospital, Makkah , Saudi Arabia**

Introduction:

Surgical antimicrobial prophylaxis to prevent infection is essential to reduce risks associated with surgical procedures. Efforts need to be made to maximize the quality of prescribing of surgical antimicrobial prophylaxis including the proper choice of antibiotics, dose, timing and duration. The aim of this study is to assess the utilization of the surgical antimicrobial prophylaxis mainly in gynecological operations.

Materials & Methods:

A retrospective cross sectional study was conducted to identify antibiotics prescribed. Prescribing trends were compared with the international guidelines mainly antibiotic of choice, dose, duration and timing of first dose. For example, routine antibiotic prophylaxis is not recommended in case of normal delivery. While in case of caesarean section the prophylactic antibiotic should be administered within 60 minutes of surgical incision.

Results:

We were able to review 335 medical records and treatment sheet of gynecological operations from May to November 2017. The percentage of deviation from the international guidelines was very high. Non-compliance to proper dosing and timing were 50% each. The overall adherence was 25% only.

Conclusion:

We recommend developing local institution guidelines for surgical antibiotics prophylaxis, conduct awareness and educational programs for healthcare professionals about proper utilization, dose, administration details and duration in order to improve the prescribing quality. This will lead to better clinical outcome, reduction in antibiotics resistance rate and minimize cost.

How to cite this abstract:

Elsaadany M. Improving Antibiotic Prophylaxis Practice in Gynecological Operations At Al-Rafie Hospital. Glob J Med Therap 2019, 1:7-8

Copyright: This is an open access journal published under the Creative Commons Attribution Non Commercial License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction, provided the original work is properly cited and its authors credited.