Jordan University of Science and Technology
Survey on cardio-protective use of aldosterone antagonists
Physicians and pharmacists' questionnaire

This survey aims to evaluate physicians and pharmacists' current knowledge, beliefs and practice related to use of aldosterone antagonists in patients with cardiovascular morbidities. Your answer is anonymous and will only be seen by study members. Please make sure you answer all the questions without consulting any material

SECTION 1: ABOUT YOU

1. *What is your age?*
☐<30 year ☐30-39year ☐40-50year ☐50-60year ☐>60year

2. *Gender*? ☐Female ☐Male

3. *Profession*?
☐Physician (consultant) ☐Physician (resident) ☐Physician (fellow)
☐Pharm.D ☐Pharmacist

4.*What is your medical specialty*?
☐Cardiac surgery ☐Cardiology
☐Internal medicine ☐General Surgery
☐Pharmacy ☐Clinical pharmacy

5. *How long have you been practicing your profession?*
.....

6.What is your hospital Of primary affiliation?
……...

SECTION 2: Awareness and Perceptions

7. Are you aware of studies in the literature regarding cardio-protective use of aldosterone antagonists in patients with post-myocardial infarction (MI) or heart failure (HF)?
☐Yes ☐No

8. In your opinion, is the use of aldosterone antagonists in post-MI patients with left ventricular dysfunction who also have HF or diabetes mellitus useful?
☐Strongly agree ☐Agree ☐Neither agree nor disagree
☐Disagree ☐Strongly disagree

9. In your opinion, is the use of aldosterone antagonist in patients with moderately severe to severe HF (NYHA class III &IV) and reduced left ventricular ejection fraction (LVEF) useful?
☐Strongly agree ☐Agree ☐Neither agree nor disagree
☐Disagree ☐Strongly disagree

10. In your opinion, is the use of aldosterone antagonists in HF or post-MI (patients of Q 8&9) useful when patients are ***normotensive***?
☐Strongly agree ☐Agree ☐Neither agree nor disagree
☐Disagree ☐Strongly disagree

11. Are you aware of studies which showed that use of aldosterone antagonists improves cardiac remodeling/oxidative stress, ventricular dysfunction and mortality?
☐Yes ☐No
☐Aware of studies related to antihypertensive effect of aldosterone antagonists only
☐Other (please specify……..)

12. Are you aware of studies in the literature regarding use of aldosterone antagonists to prevent or treat cardiac arrhythmia?
☐Yes ☐No

SECTION 3: PRACTICE

13. Which of the following is prescribed usually at your department as part of standard therapy for moderately severe to severe HF patients, or for post-MI patients with HF (Please circle any that apply)?
☐ACEi/ARB ☐Beta blocker ☐Statines ☐Aspirin
☐Aldosterone antagonists ☐Furesemide ☐Digoxin
☐Other (specify……..)

14.Does your institute have a protocol for use of aldosterone antagonists in patients?
☐Yes ☐No ☐I do not know

15.In general, how often are aldosterone antagonists used as a routine care in your patients (regardless of the purpose, diuretic or non-diuretic indications)?
☐Always ☐Usually ☐Sometime☐Seldom ☐Never

16.When aldosterone antagonist is prescribed, what is the drug do you usually use?
☐Spironolactone ☐Eplerenone ☐I do not use it

If you are not a physician or a clinical pharmacist, please skip to Q26

17. When do you consider using aldosterone antagonist (Circle any that apply)?
☐In hypertensive patients with hypokalemia
☐In hypertensive patients in which diuretics are not sufficient or intolerant
☐For cardio-protection in moderate to severe HF patients with low LVEF
☐ For cardio-protection in post-MI patients with HF or diabetes
☐In patients with hyper-aldosteronism
☐I do not use it
☐Others (specify…….)

18. Approximately, how many times do you consider using aldosterone antagonist per week ***as a diuretic*** to lower blood pressure or optimize K+ level?
☐0 ☐1-2 times ☐3-5 times ☐5-10 times ☐>10 times

19. Approximately, how many times do you consider using aldosterone antagonist per week as a ***cardio-protective drug but not-diuretic*** in patients with HF or post MI
☐0 ☐1-2 times ☐3-5 times ☐5-10 times ☐>10 times

20."Spironolactone is associated with increased risk of gynocomastia and hyperkalemia that is less observed in eplerenone"?
☐Strongly agree ☐Agree ☐Neither agree nor disagree
☐Disagree ☐Stronglydisagree

21. If you are planning to use aldosterone antagonist in post-MI patients with HF and left ventricular dysfunction, when do you generally consider it?
☐Directly following MI
☐A month after MI
☐When ever use of standard therapy is insufficient to control ventricular dysfunction
☐When ever blood pressure is not controlled by standard therapy
☐I do not use it
☐Others (specify……)

22. When you use aldosterone antagonist, do you use the same dose regardless of the indication (diuretic or cardio protective indication)?
☐Yes ☐No ☐I do not use it

23. Does use of angiotensin converting enzyme inhibitors (ACEi) or angiotensin receptor blocker (ARBs) influence your decision to use aldosterone antagonists?
☐Yes ☐No ☐I do not use aldosterone antagonist

24.If you plan to use aldosterone antagonist for cardio-protection in HF or post-MI patient, and the patient is taking ACEi or ARB, how would you use it?
☐Replace it with ACEi/ARBs ☐Add it to to ACEi/ARB
☐Replace it with diuretic if the patient is taking diuretic
☐I do not consider patient drug therapy
☐I do not use it
25. When you use aldosterone antagonist, do you consider monitoring K+ or creatinine level?
☐K+ only ☐Creatinine only
☐Both creatinine and K+ level ☐Neither K+ nor creatinine
☐I do not use it

SECTION 4: GUIDLINES

26. Aldosterone antagonists should not be used in patients with significant renal dysfunction (e.g creatinine >2.5 in men or >2.0 mg/dl in women) or hyperkalemia (K+ level >5.0 mEq/L)?
☐Agree ☐Neither agree nor disagree ☐Disagree

27. Risk of hyperkalemia increases with concomitant use of aldosterone antagonists with ACE inhibitors/ARB or Non Steroidal Anti Inflammatory Drugs (NSAID)?
☐Agree ☐Neither agree nor disagree ☐Disagree

28**.** The recommended cardio-protective ***daily*** dose of spironolactone in congestive HF or post MI is 25-50 mg, but the dose used in hypertension is usually 50-100 mg?
☐Agree ☐Neither agree nor disagree ☐Disagree

29. The American College of Cardiology and the American Heart Association (ACC/AHA) consider use of spironolactone in moderately severe to severe HF patients with reduced LVEF (EF≤35%) as?
☐Class Ia "useful and recommended"
☐Class IIa "mostly useful"
☐Class IIb "not sure if useful"
☐ClassIII "not useful and not recommended

30. The AHA/ACC recommends adding eplerenone ***directly*** in post-MI patients with reduced LVEF (EF≤40%) who also have HF or diabetes mellitus?
☐Agree ☐Neither agree nor disagree ☐Disagree

Would you please make sure that you answered all the questions!
THANK YOU