[005a] In one aspect of the present disclosure, there is provided a use of atrasentan, or a pharmaceutically acceptable salt thereof, and a SGLT-2 inhibitor, in the manufacture of a medicament for treating diabetic kidney disease, or chronic kidney disease associate with diabetes, wherein a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor are to be administered to a subject in need thereof.

[006] The present application provides methods of treating diabetic kidney disease (DKD) in a subject in need thereof by administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to a subject in need thereof. The present application is based, in part, on the unexpected observation that the combination of atrasentan (or a pharmaceutically acceptable salt thereof) and a SGLT-2 inhibitor (or a pharmaceutically acceptable salt thereof) provided an additional benefit to patients by further reducing the urine albumin to creatinine ratio (UACR) of the subject, as compared to treatment with atrasentan (or a pharmaceutically acceptable salt thereof) alone. The present application is also based, in part, on the unexpected observation that the combination of atrasentan (or a pharmaceutically acceptable salt thereof) and a SGLT-2 inhibitor (or a pharmaceutically acceptable salt thereof) provided an additional benefit to patients by reducing fluid retention (weight gain) by the subject, as compared to treatment with atrasentan (or a pharmaceutically acceptable salt thereof) alone.

[007] Some examples provide a method of treating diabetic kidney disease (DKD), comprising administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to a subject in need thereof.

[008] Some examples provide a method of delaying progressive renal function decline in a subject having DKD, comprising administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to the subject.

[009] Some examples provide a method of treating chronic kidney disease associated with diabetes, comprising administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to a subject in need thereof.

[0010] Some examples provide a method of improving treatment outcome of a subject having diabetic kidney disease, comprising administering a

therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to a subject in need thereof.

[0011] Some examples provide a method of reducing the UACR of a subject having diabetic kidney disease in a subject, comprising administering a therapeutically

effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to the subject; wherein the UACR after administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor is less than the UACR prior to administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

[0012] Some examples provide a method of reducing fluid retention in a subject having diabetic kidney disease, comprising administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to the subject; wherein fluid retention after administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor is less than fluid retention or body weight prior to administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

[0013] Some examples provide a method of reducing fluid retention in a subject having diabetic kidney disease during treatment with atrasentan, or a pharmaceutically acceptable salt thereof, comprising administering a therapeutically effective amount of a SGLT-2 inhibitor, to a subject in need thereof; wherein fluid retention after administration of the SGLT-2 inhibitor is less than fluid retention prior to administration of the SGLT-2 inhibitor.

[0014] Some examples provide a method of reducing a BNP level in a subject having diabetic kidney disease in a subject, comprising administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to the subject; wherein the BNP level after administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor is less than the BNP level prior to administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

[0015] Some examples provide a method of reducing the rate of decrease of eGFR of a subject having diabetic kidney disease in a subject, comprising administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to the subject; wherein the rate of decrease of eGFR after administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor is less than the rate of decrease of eGFR prior to

administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

[0016] Some examples provide a method of stabilizing estimated glomerular filtration rate (eGFR) of a subject having diabetic kidney disease, comprising administering a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor to subject in need thereof; wherein the eGFR of the subject following administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor is stabilized eGFR relative to a subject not administered the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

[0017] Some examples provide a method of improving treatment outcome in a subject having diabetic kidney disease, comprising administering a synergistically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a synergistically effective amount of a SGLT-2 inhibitor to a subject in need thereof.

BRIEF DESCRIPTION OF THE FIGURES

[0018] Figure 1 illustrates the change in body weight and urinary albumin:creatinine ratio in subjects treated for six weeks with atrasentan and an SGLT-2 inhibitor versus subjects treated with atrasentan alone.

DETAILED DESCRIPTION

A. DEFINITIONS

[0019] In order that the present disclosure can be more readily understood, certain terms are first defined. As used in this application, except as otherwise expressly provided herein, each of the following terms shall have the meaning set forth below. Additional definitions are set forth throughout the application.

[0020] Unless defined otherwise, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this disclosure is related. For example, the Concise Dictionary of Biomedicine and Molecular Biology, Juo, Pei-Show, 2nd ed., 2002, CRC Press; The Dictionary of Cell and Molecular Biology, 3rd ed., 1999, Academic Press; and the Oxford Dictionary Of Biochemistry And

WHAT IS CLAIMED:

1. Use of atrasentan, or a pharmaceutically acceptable salt thereof, and a SGLT-2 inhibitor, in the manufacture of a medicament for treating diabetic kidney disease, or chronic kidney disease associate with diabetes, wherein a therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of a SGLT-2 inhibitor are to be administered to a subject in need thereof.

2. The use of claim 1, wherein said administration delays progressive renal function decline in the subject.

3. The use of claim 1, wherein treatment outcome in the subject is improved relative to the treatment outcome in a subject not administered atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

4. The use of claim 1, wherein the urine albumin to creatinine ratio (UACR) of the subject is reduced, wherein the UACR of the subject following administration is less than the UACR of the subject prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

5. The use of claim 1, wherein fluid retention in the subject is reduced, wherein fluid retention after administration of the SGLT-2 inhibitor is less than fluid retention prior to the administration of the SGLT-2 inhibitor.

6. The use of claim 1, wherein B-type natriuretic peptide (BNP) levels in the subject is reduced, and wherein the BNP level of the subject following administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor is less than the BNP level of the subject upon administration of atrasentan, or a pharmaceutically acceptable salt thereof, or the SGLT-2 inhibitor alone.

7. The use of claim 1, wherein estimated glomerular filtration rate (eGFR) of the subject is reduced, and wherein the eGFR of the subject following administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor is stabilized relative to a subject not administered the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

8. The use of any one of claims 1-7, wherein the subject’s UACR, body weight or fluid retention, BNP level, rate of decrease of eGFR, or a combination of any of the foregoing are reduced following administration of the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor, wherein the reduction is greater relative to

a subject not administered atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

9. The use of claim 8, wherein at least two of the subject's UACR, body weight or fluid retention, BNP level, and rate of decrease of eGFR, are reduced.

10. The use of claim 8, wherein at least three of the subject's UACR, body weight or fluid retention, BNP level, and rate of decrease of eGFR, are reduced.

11. The use of claim 8, wherein the subject's UACR, body weight or fluid retention, BNP level, and rate of decrease of eGFR are reduced.

12. The use of claims 1-11, wherein the subject has Type 2 diabetes.

13. The use of any one of claims 1 to 11, wherein the subject has Type 1 diabetes.

14. The use of any one of claims 1 to 13, wherein an Angiotensin-Converting Enzyme (ACE) inhibitor, an Angiotensin II Receptor Blocker (ARB), a diuretic, or a combination thereof, are to be administered to the subject.

15. The use of claim 14, wherein an ACE inhibitor and a diuretic are to be administered to the subject.

16. The use of claim 14, wherein an ARB and a diuretic are to be administered to the subject.

17. The use of claim 14, wherein an ACE inhibitor and an ARB are to be administered to the subject.

18. The use of claim 14, wherein an ACE inhibitor, an ARB, and a diuretic are to be administered to the subject.

19. The use of any one of claims 16-18, wherein the subject has been administered a maximally tolerated stable dose of an ACE inhibitor or an ARB for at least 4 weeks prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

20. The use of any one of claims 16-18, wherein the subject has been administered a maximally tolerated stable dose of an ACE inhibitor or an ARB for at least 10 weeks prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

21. The use of any one of claims 16-18, wherein the subject has been administered a maximally tolerated stable dose of an ACE inhibitor or an ARB for at least 12 weeks prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

22. The use of any one of claims 19-21, wherein the subject has also been administered a diuretic prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

23. The use of any one of claims 16-22, wherein the subject is to be administered a maximally tolerated stable dose of an ACE inhibitor or an ARB.

24. The use of claim 22 or 23, wherein the diuretic is selected from the group consisting of: hydrochlorothiazide, trichlormethiazide, hydroflumethiazide, quinethazone, metolazone, chlorothiazide, chlorthalidone, indapamide, methyclothiazide bemetanide, torsemide, piretanide, ethacrynic acid, bumetanide, furosemide, triamterene, spironolactone, eplerenone, and amiloride.

25. The use of any one of claims 16-24, wherein the ACE inhibitor is selected from the group consisting of: quinapril, fosinopril perindopril, captopril, enalapril, enalaprilat, ramipril, cilazapril, delapril, fosenopril, zofenopril, indolapril, benazepril, lisinopril, spirapril, trandolapril, perindep, pentopril, moexipril, rescinnamine, and pivopril.

26. The use of any one of claims 16-24, wherein the ARB is selected from the group consisting of: candesartan, candesartan cilexetil, eprosartan, irbesartan, losartan, olmesartan, olmesartan medoxomil, telmisartan, valsartan, azilsartan medoxomil, and BRA-657.

27. The use of any one of claims 1-26, wherein the subject has been administered a SGLT-2 inhibitor for at least 12 weeks prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

28. The use of any one of claims 1-27, wherein the SGLT-2 inhibitor is selected from the group consisting of dapagliflozin, canagliflozin, ipragliflozin, empaglifozin, bexagliflozin, licogliflozin, janagliflozin (XZP-5695), tofogliflozin, ertugliflozin, henagliflozin (SHR-3824), enavogliflozin (DWP-16001), TA-1887 (3-(4-cyclopropylbenzyl)-4-fluoro-1-(β-D-glucopyranosyl)-1H-indole), indole-N-glycoside 18 (3-(4-ethylbenzyl)-1-(β-D-glucopyranosyl)-1H-indole), sotagliflozin, luseogliflozin, sergliflozin etabonate, remogliflozin, remogliflozin etabonate, and T-1095 (((2R,3S,4S,5R,6S)-6-(2-(3-(benzofuran-5-yl)propanoyl)-3-hydroxy-5-methylphenoxy)-3,4,5-trihydroxytetrahydro-2H-pyran-2-yl) etabonate).

29. The use of any one of claims 1-28, wherein the SGLT-2 inhibitor is selected from the group consisting of bexagliflozin, canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, ipragliflozin, luseogliflozin, remogliflozin, serfliflozin, licofliglozin, sotagliflozin, and tofogliflozin.

30. The use of any one of claims 1-29, wherein the SGLT-2 inhibitor is canagliflozin, dapagliflozin, empagliflozin, or ertugliflozin.

31. The use of any one of claims 1-30, wherein the atrasentan is to be administered as a pharmaceutically acceptable salt.

32. The use of any one of claims 1-31, wherein the atrasentan is to be administered as atrasentan hydrochloride or atrasentan mandelate.

33. The use of any one of claims 1-31, wherein the atrasentan is to be administered as atrasentan hydrochloride.

34. The use of any one of claims 1-30, wherein the atrasentan is to be administered as a free base.

35. The use of any one of claims 1-34, wherein the therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, is from about 0.20 mg to about 1.5 mg of atrasentan, or an equivalent amount of a pharmaceutically acceptable salt thereof.

36. The use of any one of claims 1-35, wherein the therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, is from about 0.25 mg to about 1.25 mg of atrasentan, or an equivalent amount of a pharmaceutically acceptable salt thereof.

37. The use of any one of claims 1-36, wherein the therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, is from about 0.40 mg to about 0.85 mg of atrasentan, or an equivalent amount of a pharmaceutically acceptable salt thereof.

38. The use of any one of claims 1-37, wherein the therapeutically effective amount of atrasentan, or a pharmaceutically acceptable salt thereof, is about 0.75 mg of atrasentan, or an equivalent amount of a pharmaceutically acceptable salt thereof.

39. The use of any one claims 1-38, wherein the subject has a UACR of about 300 mg/g to about 5000 mg/g prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

40. The use of any one of claims 1-39, wherein the subject has a UACR of about 300 mg/g to about 2000 mg/g prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

41. The use of any one of claims 1-40, wherein the subject has a UACR of about 300 mg/g to about 1000 mg/g prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

42. The use of any one of claims 1-41, wherein the subject has a UACR of about 300 mg/g to about 500 mg/g prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

43. The use of any one of claims 1-42, wherein the subject has a brain natriuretic peptide (BNP) concentration of about 200 pg/mL or less prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

44. The use of any one of claims 1-43, wherein the subject has a brain natriuretic peptide (BNP) concentration of about 20 pg/mL to about 100 pg/mL, prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

45. The use of any one of claims 1-44, wherein the subject has a serum potassium level of at least about 3.5 mmol/L prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

46. The use of any one of claims 1-45, wherein the subject has systolic blood pressure of about 110 mm Hg to about 180 mm Hg prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

47. The use of any one of claims 1-46, wherein the subject has been determined to have controlled serum glucose levels prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

48. The use of any one of claims 1-47, wherein the subject has an estimated glomerular filtration rate (eGFR) of about 75 mL/min/1.73 m^2 to about 25 mL/min/1.73 m^2, about 60 mL/min/1.73 m^2 to about 25 mL/min/1.73 m^2, or about 75 mL/min/1.73 m^2 to about 25 mL/min/1.73 m^2 prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

49. The use of any one of claims 1-48, wherein the subject has a serum albumin level of at least 25 g/L prior to the first administration of atrasentan, or a pharmaceutically acceptable salt thereof.

50. The use of any one of claims 1-49, wherein the subject maintains a potassium level within the normal physiologic range during treatment.

51. The use of any one of claims 1-50, wherein the subject maintains a sodium level within the normal physiologic range during treatment.

52. The use of any one of claims 1-51, wherein the fluid retention in the subject is reduced by at least about 1 kg, by at least about 2 kg, by at least about 3 kg or by about 4 kg after treatment with the atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor, for at least about 15 to about 30 days.

53. The use of any one of claims 1-52, wherein the average rate of decrease in eGFR is reduced by from about 15% to about 30% after about 1 month to about 12 months of treatment with atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

54. The use of any one of claims 1-53, wherein the UACR of the subject is reduced by from about 10% to about 30% after about 1 month to about 12 months of treatment with atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

55. The use of any one of claims 1-54, wherein the BNP level of the subject is reduced by from about 1% to about 10% after about 1 month to about 12 months of treatment with atrasentan, or a pharmaceutically acceptable salt thereof, and the SGLT-2 inhibitor.

56. The use of any one of claims 1-55, wherein the subject is to be concomitantly administered a statin, a calcium channel blocker, a beta blocker, an aldosterone antagonist, fish oil, or a combination of any of the foregoing.

57. The use of claim 56, wherein the statin is selected from the group consisting of: atorvastatin, fluvastatin, lovastatin, pravastatin, rosuvastatin, simvastatin, and pitavastatin.

58. The use of any one of claims 1-57, wherein the subject has not been previously diagnosed with one or more of IgA nephropathy, HIV/AIDS, HIV-related nephropathy or acute kidney failure.

59. The use of any one of claims 1-58, wherein the subject is not currently being treated for one or more of IgA nephropathy, HIV/AIDS, HIV-related nephropathy or acute kidney failure.

60. The use of any one of claims 1-59, wherein the subject is not currently diagnosed with cancer.

61. The use of any one of claims 1-60, wherein the subject is not currently being treated for cancer.

62. The use of claim 60 or 61, wherein the cancer is lung cancer or prostate cancer.