Supplementary file 1 - eMethods

eMethod 1 - Eligibility criteria for the study

eMethod 2 - Search strategy for the study

eMethod 1 - Eligibility criteria for the study

Inclusion criteria:

- 1. Adults both males and females aged 18 and more than 18 years undergoing haemodialysis or peritoneal dialysis receiving antihypertensive medication.
- 2. Randomized controlled trials with individual and cluster type, observational studies.
- 3. Studies that assessed the effects of ARB on blood pressure.
- 4. Studies that assessed other antihypertensive agents (Calcium channel blocker, alpha and beta blocker, diuretic) or placebo.
- 5. Studies in English, or studies that can be translated to English.

Exclusion criteria:

- 1. Paediatric age group <18 years
- 2. Editorials, guidelines
- 3. Commentary reports, Case reports <5 patients
- 4. Abstracts with no full text available
- 5. Letters to editors
- 6. Animal and cadaveric studies

eMethod 2 - Search strategy for the study

PubMed search

| No | Terms used | Data |
|----|---|---------|
| #1 | "Renal Dialysis" [Mesh] OR "Hypertension, Renal" [Mesh] OR "post dialysis hypertension*" [tw] | 142,221 |
| #2 | "Losartan" [Mesh] OR Losartan*[tw] | 10,448 |
| #3 | "Antihypertensive Agents" [Mesh] OR "High BP treatment*" [tw] OR "High BP management*" OR "Hypertension management*" [tw] OR "Anti-hypertensive agent*" [tw] OR "Drugs, Anti-Hypertensive" [tw] OR "Agents, Anti-Hypertensive" [tw] | 77,672 |
| #4 | #1 AND #2 | 247 |
| #5 | #1 AND #3 | 2939 |
| #6 | #1 AND #2 AND #3 | 140 |
| #7 | #2 AND #3 | 3137 |
| #8 | #7 OR #1 | 145,218 |

Cochrane search

#1 MeSH descriptor: [Hypertension, Renal] explode all trees 271

#2 MeSH descriptor: [Renal Dialysis] explode all trees 5570

#3 MeSH descriptor: [Losartan] explode all trees 1301

#4 MeSH descriptor: [Antihypertensive Agents] explode all trees 8399

#5 #1 AND #2 15

#6 #3 AND #4 AND #5 0

#7 #3 AND #4 OR #5 640

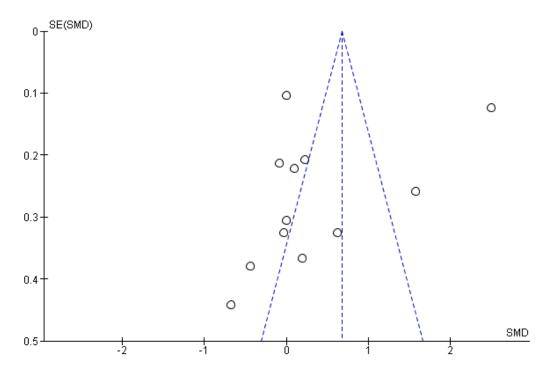
#8 #3 AND #4 625

Supplement file 2

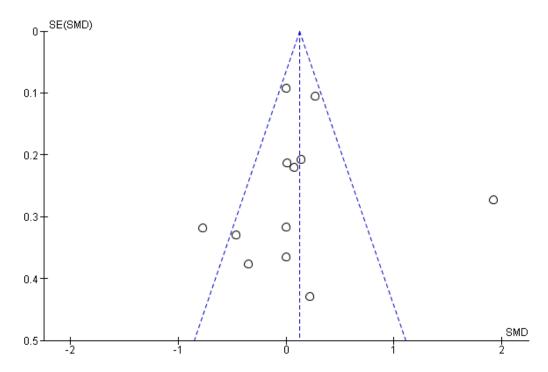
- eTable 1 NIH quality assessment for the included studies in the systematic review (N = 13)
- **eFigure 1** Publication bias of the included studies in post-dialysis for the systolic and diastolic blood pressure (SBP and DBP) among the included studies for the review.
- **eFigure 2** Publication bias of the included studies in post-dialysis for the systolic and diastolic blood pressure (SBP and DBP) with losartan and other ARB agents among the included studies for the review.
- **eFigure 3** Sensitivity analysis of the included studies in post-dialysis for the SBP and DBP (A study with less than 30 study population were excluded for their analysis)

| eTable 1 - NIH quality assessment for the included studies in the systematic review (N = 13) | | | | | | | | | |
|---|-------------------------------|--|--|--|--|--|--|--|--|
| Author and year | NIH Quality assessment (Bias) | NIH Quality assessment (Bias) supporting text | | | | | | | |
| Huber M et al, ²⁹ 2013 | Medium | Drop out was high | | | | | | | |
| Takahashi A et al, ²⁷ 2006 | Low | | | | | | | | |
| Aftab RA et al, ²⁵ 2017 | Low | | | | | | | | |
| Mitsuhashi H et al, 15 2009 | Medium | No blinding mentioned | | | | | | | |
| Shigenaga A et al, ³³ 2009 | Low | | | | | | | | |
| Bikos A et al, ²⁸ intradialytic, and ambulatory BP in patients with intradialytic hypertension.\nMethods: This is a pilot randomized-cross-over study in 38 hemodialysis patients (age: 60.4 Æ 11.1 years, men: 65.8% 2018 | Low | | | | | | | | |
| lino Y et al, ³⁶ 2003 | Low | | | | | | | | |
| Suzuki H et al, ³⁵ and is highly predictive of future cardiac morbidity and mortality. In patients with hypertension and LVH, both an angiotensin converting enzyme (ACE 2004 | Medium | Blinding not done | | | | | | | |
| Iseki K et al, ³¹ but there is uncertainty surrounding the effects of blood pressure (BP 2013 | Medium | Blinding and allocation concealment not done | | | | | | | |
| Ichihara A et al, ³⁰ 2005 | Medium | Blinding and allocation concealment not done | | | | | | | |
| Suzuki H et al, ³⁴ their effect in patients with kidney failure on HD therapy is not known. Study Design: Open-labeled randomized trial. Setting & Participants: Patients aged 30 to 80 years receiving HD 2 to 3 times weekly for 1 to 5 years at 5 university-affiliated dialysis centers. Interventions: Treatment with ARBs (valsartan, candesartan, and losartan 2008 | Medium | Blinding not done | | | | | | | |
| Peters CD et al, ²⁶ but whether they exert beneficial cardiovascular effects is unclear. Here the long-term effects of the angiotensin II receptor blocker, irbesartan, were studied in hemodialysis patients in a double-blind randomized placebo-controlled 1-year intervention trial using a predefined systolic blood pressure target of 140mmHg (SAFIR study 2015 | Low | | | | | | | | |
| Kayabasi H et al, ³² 2013 | Low | | | | | | | | |

eFig 1(a): Systolic blood pressure



eFig 1(b): Diastolic blood pressure



eFigure 2: Publication bias of the included studies in post-dialysis for the systolic and diastolic blood pressure (SBP and DBP) with losartan and other ARB agents among the included studies for the review.

eFig 2(a): Systolic blood pressure

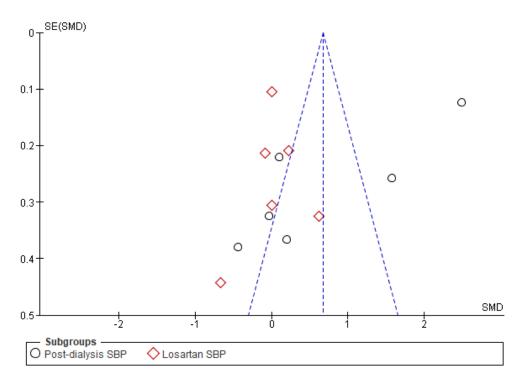
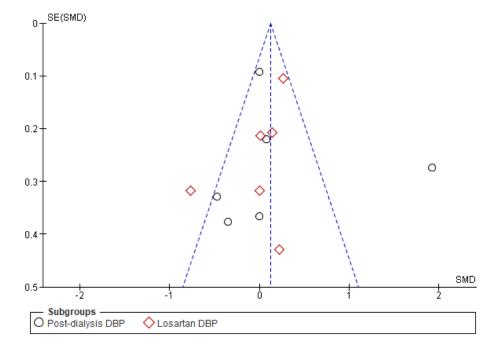


Fig 2(b): Diastolic blood pressure



eFigure 3: Sensitivity analysis of the included studies in post-dialysis for the SBP and DBP (A study with less than 30 study population were excluded for their analysis)

| | Study | | | С | ontrol | | | Std. Mean Difference | Std. Mean Difference | | | |
|-----------------------------------|------------|---------------|-----------------------------------|-------|--------|--------------------|--------|----------------------|----------------------|--|--|--|
| Study or Subgroup Me | | Mean SD Total | | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI | | | |
| Aftab RA, 2017 | 156.34 | 13.4 | 44 | 157.5 | 14.3 | 44 | 16.6% | -0.08 [-0.50, 0.34] | | | | |
| lino Y, 2003 | 141 | 16.2 | 47 | 137.6 | 13.9 | 46 | 16.6% | 0.22 [-0.18, 0.63] | • - | | | |
| Iseki K, 2013 | 140 | 2 | 235 | 135 | 2 | 234 | 16.9% | 2.50 [2.25, 2.74] | | | | |
| Peters CD, 2015 | 138 | 20 | 41 | 136 | 22 | 41 | 16.6% | 0.09 [-0.34, 0.53] | | | | |
| Suzuki H, 2008 | 140 | 12 | 183 | 140 | 11 | 183 | 16.9% | 0.00 [-0.20, 0.20] | + | | | |
| Takahashi A, 2006 | 153 | 2 | 43 | 149 | 3 | 37 | 16.4% | 1.58 [1.07, 2.08] | | | | |
| Total (95% CI) 593 58 | | | | 585 | 100.0% | 0.72 [-0.31, 1.75] | | | | | | |
| Heterogeneity: Tau ² = | = 1.62; Ch | i² = 29 | | | | | | | | | | |
| Test for overall effect | Z=1.37 | (P = 0. | Favours [Study] Favours [Control] | | | | | | | | | |

eFig 3(b): Diastolic blood pressure

| | 5 | Study | | Control | | | | Std. Mean Difference | Std. Mean Difference | | | | |
|--------------------------|-----------------------------|--|---------------|--|-------------|--------|-----------------------------------|----------------------|----------------------|----------------|---|---|-------------|
| Study or Subgroup | y or Subgroup Mean SD Total | | Mean SD Total | | | Weight | IV, Random, 95% CI IV, Random, 95 | | | , 95% CI | | | |
| Aftab RA, 2017 | 80.7 | 9.78 | 44 | 80.6 | 12.6 | 44 | 16.1% | 0.01 [-0.41, 0.43] | | -+ | _ | | |
| lino Y, 2003 | 84.3 | 8.6 | 47 | 83.1 | 8.1 | 46 | 16.2% | 0.14 [-0.26, 0.55] | | - • | | | |
| Iseki K, 2013 | 77.7 | 8.7 | 235 | 77.7 | 2 | 234 | 18.9% | 0.00 [-0.18, 0.18] | | + | | | |
| Peters CD, 2015 | 69 | 11 | 41 | 68 | 15 | 41 | 15.8% | 0.08 [-0.36, 0.51] | | - | _ | | |
| Suzuki H, 2008 | 80 | 8 | 183 | 78 | 7 | 183 | 18.7% | 0.27 [0.06, 0.47] | | - | - | | |
| Takahashi A, 2006 | 83 | 1 | 43 | 80 | 2 | 37 | 14.4% | 1.92 [1.39, 2.46] | | | | _ | |
| Total (95% CI) | | | 593 | | | 585 | 100.0% | 0.36 [-0.03, 0.75] | | • | • | | |
| Heterogeneity: Tau² = | -2 | - | | | | | | | | | | | |
| Test for overall effect: | - | avours [Study] F | avours [| [Control] | 2 | | | | | | | | |