CORRIGENDUM

Corrigenda Regarding Effect of Dietary Potassium Restriction on Serum Potassium, Disease Progression, and Mortality in Chronic Kidney Disease: A Systematic Review and Meta-Analysis (J Ren Nutr. 2020;30[4]:276-285)

The authors regret that the printed version of the above article contained a number of errors. The correct and final version follows, and a summary of the main changes are below.

**Corrected Conclusion (Abstract)**

Very-low-quality evidence supports consensus that dietary potassium restriction reduces Sk in normokalemia **but whether this is associated with risk of death in those with CKD is uncertain**. High-quality randomized controlled trials are needed.

Instead of:

Very-low-quality evidence supports consensus that dietary potassium restriction reduces Sk in normokalemia and **is associated with a reduced risk of death in those with CKD**. High-quality randomized controlled trials are needed.

**Corrected Results**

The correctly labelled forest plot is seen in Figure 3A. This has changed the direction of the association but continues to suggest that the risk of CKD progression is not significantly different in those who consumed a high potassium diet compared to a low potassium diet.

**Figure 3A (Re-labelled). Meta-analysis of adjusted hazard ratios of CKD progression comparing highest to lowest urinary potassium between 3 year and 5 year follow-up**

Adults consuming higher intakes (4,558 mg/d) were 14% more likely to experience a decline in kidney function (as measured by minimum reduction of 5% in estimated glomerular filtration rate) (HR: 1.14; 95% CI: 0.77-1.70, P 5 .5); compared to those with lower intakes (1,725 mg/d) at follow-up (Fig. 3), although this was not a statistically significant result.

In Figure 4 Noori et al. log hazard ratio should read 0.88 not -0.88. An updated forest plot is seen in Figure 4A.
Figure 4A (Re-labelled). Meta-analysis of adjusted hazard ratios for risk of mortality comparing highest to lowest urinary and dietary potassium between 3 to 5 years

Instead of suggesting that a low potassium diet was statistically associated with a reduction in mortality, this now suggests that the risk of premature mortality is not statistically different between those consuming a high or low potassium diet. However, the direction of effect now shows participants consuming higher levels of dietary potassium (4,414 mg/d) had 20% less risk of death (HR 0.80; 95% CI: 0.46, 1.41, \( P = 0.44 \)) compared to those who consumed lower amounts of dietary potassium (1,670 mg/d) at follow-up between three to five years (Figure 4A).

Following this new analysis, the abstract results should read: We found very-low quality evidence that dietary potassium restriction (1,295 mg/d) versus an unrestricted diet (1,570 mg/d) lowered serum potassium by \(-0.22\) mEq/L (95% CI: \(-0.33, -0.10\); \( I^2 = 0\% \)) in normokalemia. Higher (4,558 mg/d) versus lower (1,725 mg/d) dietary potassium was not significantly associated with disease progression (HR: 1.14, 95% CI: 0.77, 1.70; \( I^2 = 57\% \)). Higher (4,414 mg/d) compared with lower (1,670 mg/d) dietary potassium intake was not significantly associated with reduced mortality risk (HR; 0.80, 95% CI: 0.46, 1.41; \( I^2 = 78\% \)).

In the GRADE summary Table 2A (which is Table 2 updated), the relative (95% CI) effect for mortality in high compared to low should read HR: 0.80 (0.46 to 1.41). The absolute (95% CI) effect for mortality should read 31 fewer per 1,000 (from 87 fewer to 61 more) on a high potassium diet compared to a low potassium diet. This resulted was downgraded, from ‘serious’ to ‘very serious’, in the GRADE inconsistency certainty assessment due to the considerable heterogeneity (\( I^2 >70\% \)) between studies that reported an adverse outcome effect.
### Table 2A. GRADE summary of evidence

<table>
<thead>
<tr>
<th>Certainty Assessment</th>
<th>No of Patients</th>
<th>Effect</th>
<th>Numbers Needed to Treat (NNT)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dietary Potassium Restriction</strong></td>
<td><strong>No dietary Potassium Restriction</strong></td>
<td><strong>Relative (95% CI)</strong></td>
<td><strong>Absolute (95% CI)</strong></td>
</tr>
<tr>
<td>Change in serum potassium</td>
<td>2 Randomised trials</td>
<td>Very serious*</td>
<td>Not serious</td>
</tr>
<tr>
<td>CKD progression (assessed with urinary potassium)</td>
<td>4 Observational studies</td>
<td>Serious‡</td>
<td>Serious§</td>
</tr>
<tr>
<td>Mortality (assessed with urinary potassium and dietary potassium)</td>
<td>4 Observational studies</td>
<td>Serious‡</td>
<td>Very serious††</td>
</tr>
</tbody>
</table>

CKD, chronic kidney disease; CI, confidence interval; GRADE, Grading of Recommendations Assessment, Development and Evaluation; MD, mean difference; HR, hazard ratio.

*Cockram et al.,30 influenced the overall effect but did not report how participants were selected and allocated to groups. There was an intentional difference in dietary exposure; however, both groups could have been exposed to the same amount of dietary potassium. Blinding of participants may have been possible as the cartons of nutritional supplements may have been generic, but it is not known. Blinding of outcome assessment was unknown. Arnold et al.29 found that 40% of the intervention group received potassium binding medication to achieve the target serum potassium level.

†Both studies have reported that a lower potassium intake results in a greater change from baseline in the intervention groups.

‡All studies had serious risk of bias across 5 domains (bias due to confounding, bias in selection of participants, bias due to deviations from intended interventions, bias due to missing data/lost to follow-up and bias in measurement of outcomes).

§Heterogeneity substantial as per GRADE (I² = 57%).

‖Urinary potassium used as a surrogate of dietary potassium intake.

‖Large confidence intervals around effect size.

**Publication biased not assessed - bias assumed.

††Considerable heterogeneity as per GRADE (I² = 78%).

+++Assumed publication bias as too few studies to complete funnel plot. All three studies report the same effect.