Introduction:
This study compared epidemiology, short- and long-term outcomes for patients with community-acquired (CA) and hospital-acquired (HA) acute kidney injury (AKI).

Methods:
We retrospectively analyzed all episodes of AKI over a period of 3.5 years (2014–2017) on the basis of routinely obtained serum creatinine measurements in 103,161 patients whose creatinine had been measured at least twice and who had been in the hospital for at least two days. We used the “Kidney Disease: Improving Global Outcomes” (KDIGO) criteria for AKI and analyzed the first hospital admission. A total of 103161 were admitted in hospital and fulfilled the inclusion criteria. Average observation period per patient was 248 days.

Results:
The incidence of CA-AKI among included hospital admissions was 9.7% compared with an incidence of 8.6% of HA-AKI, giving an overall AKI incidence of 18.3%. Patients with CA-AKI were younger than patients with HA-AKI (64 vs 66.2y) and had significantly less comorbidities, including preexisting cardiac failure, ischemic heart disease, hypertension, diabetes. Patients with CA-AKI were more likely to have stage 1 AKI (69.3 vs 58.4%, p<0.001) and had significantly shorter lengths of hospital stay than patients with HA-AKI (14 vs 24d, p<0.001). Those with CA-AKI had better survival than patients with HA-AKI (Figure 1; p<0.001). Patiens with CA-AKI were less likely dialysis dependent before discharge (1.9 vs 4.8% in HA-AKI; p<0.001)

Patients with HA-AKI received more often administrative coding of AKI (29.3% vs 26.5% in CA-AKI patients; p<0.001)

Conclusion:
Patients with CA-AKI sustain less severe AKI than patients with HA-AKI, accordigly showing better short- and long-term outcomes. However, patiens with CA-AKI are at risk of inadequate clinical perception of AKI.
### Long-term survival

<table>
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<th>Number at risk</th>
<th>Years</th>
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<th>1</th>
<th>2</th>
<th>3</th>
</tr>
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<td>No AKI</td>
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<td>24004</td>
<td>11466</td>
<td>3189</td>
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<tr>
<td>CA-AKI</td>
<td>10002</td>
<td>1859</td>
<td>806</td>
<td>197</td>
<td></td>
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<tr>
<td>HA-AKI</td>
<td>8864</td>
<td>1466</td>
<td>653</td>
<td>170</td>
<td></td>
</tr>
</tbody>
</table>

Log-rank test: P < 0.001

*Figure 1*