Introduction:
This study aims to show that contrast procedures do not significantly increase the risk of renal injury and should not be deferred. Traditionally CIAKI is the most important cause of in-hospital renal failure after nephrotoxic drugs and shock. Problem is also the non-uniform definition of CIAKI proposed by three different initiatives (AKIN, ESUR and KDIGO). AKIN, being the most rigorous, defines CIAKI as an increase in serum creatinine >0.3 mg/dL or >50% of baseline within 48 hours.

Methods:
A retrospective observational single-centre cohort study analyzed 82 patients who underwent a contrast procedure with Iomeron 350. The first group underwent a CT pulmonary angiography (CTPA), and the second a coronary angiography with PCI. No patient was previously prepared (RAAS blockade removal, crystalloid administration etc). We studied demographics, history of CKD and comorbidities and their impact on the CIAKI by the AKIN criteria.

Results:
A total of 82 patients were divided into two groups (CTPA and PCI). CTPA group (20M, 21F) all had acute PE and the PCI group (28M, 13F) were treated for ACS. The mean age was 69 and 65 years respectively. CKD was more prevalent in the PCI group (8pt vs. 3pt) possibly explained by the more advanced atherosclerotic disease. Advanced CHD (NYHA III/IV) was found in 3pt (PCI) vs. 2pt (CTPA) while diabetes and shock were equally distributed (11pt and 5pt) in both groups. The mean amount of contrast was significantly higher in the PCI group (242.3mL vs. 60mL). The mean creatinine/eGFR measured before and after contrast in the CTPA group was 87.3/71.7 vs. 75.1/83 and in the PCI group 91.4/75.9 vs. 105.3/76.1. None of the patients, according to the AKIN definition, developed any significant rise in creatinine/eGFR despite existing comorbidities and risk factors.

Conclusion:
Contrast procedures with non-ionic contrast in patients with significant comorbidities and risk factors for secondary AKI pose minimal risk for CIAKI and therefore should not be deferred in clinical practice.