tion. The GRACE estimated risk of 12-month mortality was calculated for each patient.
Results: The CFS identified 40 (20%) patients as frail (score ≥5). The odds of 12-month mortality doubled per point increase in CFS after adjustment for age, sex and comorbidity (OR 2.04, 95% CI 1.51–2.83, p<0.001). Half of the frail population had died within 12 months of myocardial infarction (48% vs. 9% with CFS ≤4, p<0.001). The CFS had good discrimination for mortality by ROC analysis (AUC 0.81, 95% CI 0.72–0.89) and enhanced the GRACE estimate (AUC 0.86 vs. 0.80 without CFS, p=0.04, Figure). At existing GRACE thresholds, addition of the CFS resulted in a Net Reclassification Improvement (NRI) of 0.44 (95% CI 0.28–0.60, p<0.001), largely through reductions in risk estimates. Similar effects were observed in an external validation cohort (NRI 0.46, 95% CI 0.23–0.69, p<0.001).
Conclusions: The GRACE model overestimated mortality risk after myocardial infarction in older patients which may reflect dependence on age. The CFS is a simple guided frailty tool that could enhance risk prediction in this setting. These findings merit further evaluation in larger cohorts.
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P4617
Acute myocardial infarction as a first time presentation of coronary artery disease in Poland in 2014-2016

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Introduction: Acute myocardial infarction may be the first manifestation of coronary artery disease (CAD). The aim of this study was to compare demographics, past medical history and angiographic presentation of patients with myocardial infarction as a first or subsequent manifestation of CAD.
Methods: Patient with STEMI or NSTEMI treated with PCI were enrolled to this registry study in Poland in 2014–2016 (the national ORPKI registry).
Results: There were 123965 patients who fulfilled inclusion criteria. Acute myocardial infarction as first CAD presentation was diagnosed in 77% of cases (Table 1).

Table 1

	First manifestation of CAD	Subsequent manifestation of CAD	p
Age [years]	66±12	69±11	<0.001
Gender – females	34%	30%	<0.001
Time from pain onset till angiography [min] – median	390	538	<0.001
Diabetes mellitus	19%	33%	<0.001
Smoking	28%	20%	<0.001
Arterial hypertension	61%	77%	<0.001
COPD	2%	4%	<0.001
Femoral access site	27%	36%	<0.001
1-vessel disease in angiography	46%	30%	<0.001

CAD: coronary artery disease; COPD: chronic obstructive pulmonary disease.

Conclusions: Patients with acute myocardial infarction as first CAD manifestation constitute ca. 75% of all cases and are characterized by lower mean age, more frequent female gender and cigarette smokers. These patients are also prone to more frequent use of radial approach and are characterized by single vessel disease in angiography. The time from pain onset to angiography was significantly (by ca. 2 hours) lower in patients with first CAD manifestation.

P4618
Temporal trends in emergency care and outcomes of geriatric patients with acute myocardial infarction in Japan - report from the miyagi AMI registry

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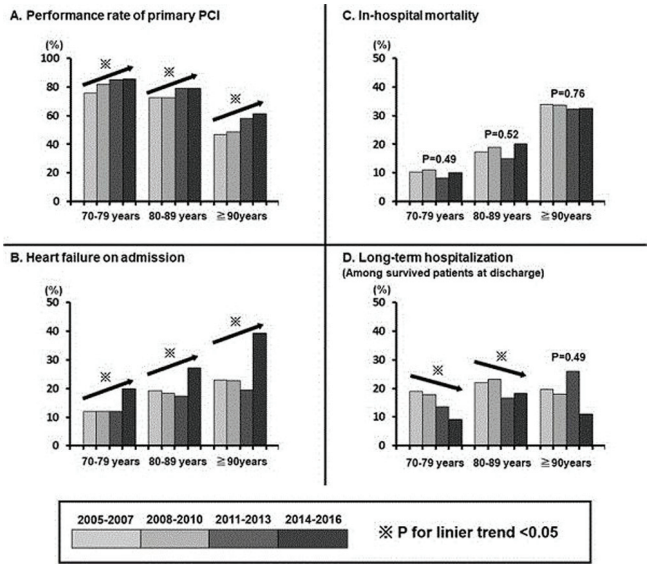
Background: Although we recently reported that the incidence of acute myocardial infarction (AMI) has been decreasing in elderly population in Japan, the actual situation of clinical practice for geriatric patients with AMI remains to be elucidated. Furthermore, comprehensive information from Japan, the most super-aging country in the world, would be helpful for making future perspectives in other countries.
Purpose: We examined the temporal trends in emergency care and outcomes of geriatric patients with AMI in Japan.
Methods and results: The Miyagi Acute Myocardial Infarction (AMI) Registry Study is a prospective and observational study where all AMI patients in the Miyagi prefecture (2.35 million populations) have been prospectively registered for 39 years since 1979. In the present study, we enrolled a total of 6,610 AMI patients aged ≥70 years (M/F, 4,149/2,461) registered from 2005 to 2016, and analyzed them according to age [70–79 (n=3,491), 80–89 (n=2,607), and ≥90 years (n=512)]. Statistical analysis was performed by using the Cochran-Armitage trend test. The performance rate of primary percutaneous coronary intervention (PCI) has significantly increased during the study period in all age groups (all P<0.05) (Figure A). Particularly, recent performance rate of primary PCI exceeded 60% even in patients aged ≥90 years. However, since the prevalence of heart failure with Killip class ≥2 on admission has also significantly increased (Figure B), in-hospital mortality itself remained unchanged in all age groups (Figure C). Importantly, the sex difference in in-hospital mortality has emerged in the patients aged 70–79 years (male 9% vs. female 12%, P<0.01), but was not noted in those aged 80–89 years (male 18% vs. female 18%, P=0.627) or those aged ≥90 years (male 31.0% vs. female 35%, P=0.38). Furthermore, among the patients who survived to discharge (n=4,844), the rate of long-term hospitalization over 30 days has significantly decreased in the patients aged 70–79 (P<0.05) and 80–89 years (P<0.05) but not in those aged ≥90 years (Figure D). In all age groups, the performance of primary PCI was clearly associated with improvement of in-hospital mortality and shortened hospitalization period. In 70–79, 80–89, and ≥90 years patients, odds ratios [(ORs) (confidential intervals)] of primary PCI adjusted by covariates, including age, sex, coronary risk factors, past AMI history, and heart failure or cardiopulmonary arrest on admission, were 0.51 (0.38, 0.68), 0.38 (0.30, 0.49), and 0.43 (0.27, 0.69) for in-hospital death and 0.71 (0.53, 0.94), 0.64 (0.48, 0.87), and 0.36 (0.18, 0.74) for long-term hospitalization over 30 days, respectively.



Temporal trend

Conclusions: These results demonstrates the temporal trends in primary care and outcomes of geriatric AMI patients in Japan, indicating that primary PCI has beneficial effects on in-hospital mortality and hospitalization period even for geriatric AMI patients.
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P4619
Accelerated accrural of ischaemic events after stopping dual antiplatelet therapy at 12 months in a real-world acute myocardial infarction cohort

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Background: Clinical practice guidelines recommend 12 months of dual antiplatelet therapy (DAPT) in patients with acute myocardial infarction (AMI).
Purpose: We investigated the incidence of new ischaemic events following discontinuation of 12-month DAPT in AMI.
Methods: Patients with AMI treated with DAPT for 12 months were prospectively studied over 2 years. Incident rates of new MI, stroke and all-cause mortality were compared with the first month post-MI: 1–6 months, 6–12 months and 12–24 months using Poisson regression.
Results: Among the 765 patients studied (age 60.4±12.8y, 19% female, 56% ST-elevation MI), 747 patients (98%) underwent percutaneous coronary intervention for the index MI using new-generation drug-eluting stents and received DAPT for 12 months. DAPT comprised of aspirin and clopidogrel (22%), ticareglor (41%), or prasugrel (37%). There was an increase in accrued incidence of new MI, stroke and all-cause mortality with time. When compared with the first month post-AMI, accrued event rates for new MI were 2 times higher at 6–12 months (incidence rate ratio [IRR] 2.41, 95% C.I. 1.14–5.52). Upon cessation of DAPT after 12 months, there was a steep acceleration in accrued ischaemic event rates, with increased incidence for MI (IRR 4.4, 95% C.I. 2.09–9.28), stroke (IRR 4.25, 95% C.I. 1.12–16.10) and all-cause mortality (IRR 3.99, 95% C.I. 1.67–9.51).