Results In total 692 consecutive procedures, 386CA (56%) and 306PCI (44%) were performed, 380 (55%) via RFA, 232 (34%) via RRA and 80 (11%) via LRA. The CD was lower in the RFA (6.9±11.8∝Sv vs. RRA 26.4±54.1µSv, p<0.001, vs. LRA 9.9±18.5µSv, p<0.001).

There was no difference in the DAP between LRA and RRA (34.4±23.8Gycm2 vs. 40.3±28.5Gycm^2, p=0.13).

The RFA demonstrated higher levels (55.3±64.3Gycm^2) compared to both RRA (p=0.03) and LRA (p<0.01).

The adjusted ORE was significantly lower in the RFA (0.17±0.27∝Sv/Gycm^2) compared to the RRA (0.62±0.69∝Sv/Gycm^2, p<0.001) or the LRA group (0.30±0.36∝Sv/Gycm^2, p<0.001), as was for the LRA compared to the RRA (p<0.001).

Conclusions The RFA in CA and PCI is associated with significantly lower ORE when compared to the RRA or LRA. The LRA is associated with significantly lower ORE when compared to the RRA.

The author hereby declares no conflict of interest

0254

Updated reference levels for radiation doses to patients undergoing coronary angiography and coronary percutaneous interventions: the RAY'ACT2 study

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Purpose The RAY'ACT project is a nationwide, multicentre survey program aimed at evaluating patient radiation protection (RP) during coronary angiography (CA) and percutaneous coronary interventions (PCI) in French non-university public hospitals, which represent >30% of the national activity for PCIs, and 60% of the emergency cases. We present the updated reference levels based on the results of the second survey conducted in 2013 (RAY'ACT2).

Methods RP parameters from 48,547 CAs and 40,026 PCIs performed at 61 centres during 2013 and routinely registered in professional software were extracted and analysed retrospectively. Kerma-area product (KAP), fluoroscopy time (FT), number of acquired frames (Nb F) and runs (NR), and total Air Kerma at interventional reference point (KA, r) were analysed separately for CAs and PCIs (elective and ad hoc pooled). All procedures of the year were included.

Results The table shows the medians (Q1-Q3) of the RP parameters, updated RLs based on the 75th percentiles of the values for CA and PCI (bold), and previous RLs (RAY'ACT1, 2010).

Conclusions Between 2010 and 2013, a 20 to 30% decrease was observed in medians and Reference Levels (Q3) for main RP parameters, including KAP and total Air Kerma.

Abstract 0254 – Table: Results

	2013 (RAY'ACT2) 61 centres	**2010 (RAY'ACT1) 44 centres**
CA	*N=48,547*	*N=31,066*
KAP (Gy.cm²)	20.9 (11.8-**35.7**)	27.2 (15.5-**45.2**)
FT (min)	3.3 (2.1-**5.7**)	3.7 (2.3-**6.3**)
Nb Frames	404 (284-**566**)	553 (388-**769**)
KA,r (mGy)	294 (164-**498**)	421 (240-**695**)
PCI	*N=40,026*	*N=25,356*
KAP (Gy.cm²)	45.2 (25.6-**77.6**)	56.8 (32.8-**94.6**)
FT (min)	9.8 (6.3-**15.4**)	10.3 (6.7-**16.2**)
Nb Frames	676 (465-**960**)	837 (578-**1193**)
KA,r (mGy)	747 (421-**1285**)	1052 (589-**1788**)

The author hereby declares no conflict of interest

0368

Radiation in transfemoral versus transradial access in diagnostic coronary angiography

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Background/Introduction Although transradial access (TRA) is being increasingly used in interventional cardiology, there are concerns about a possible increase in radiation exposure as compared to transfemoral access (TFA).

Purpose The aim of this study is the comparison of radiation exposure parameters between coronary angiography procedures performed via left radial artery, right radial artery or femoral artery and the detection of factors that contribute to increased radiation dose.

Methods We analysed collected data on radiation exposure for a total of 733 consecutive diagnostic coronary angiographies (69% in men) excluded those concerning patients with aortocoronary bypass grafts or those accompanied by aortography or ventriculography. Dose area product (DAP) and fluoroscopy time (FT) were used as a means of radiation exposure measurement.

Results The mean patients' age was 66.8±10.1 years and BMI 28.4±4.6kg/m^2. Femoral access was used in 45% of the procedures, right radial access (RRA) in 42% and left radial access (LRA) in 13%.

More diagnostic catheters were used via TFA than TRA (2.24±0.63 vs 1.94±0.83 respectively, p<0.001); LRA was associated with the use of more diagnostic catheters than RRA.

TRA was associated with increased FT (4.8±3.5 vs 3.1±2.4 min, p<0.001 but there was no difference regarding FT between RRA and LRA. Hypertension and the presence of ascending aorta aneurysm were predictors of increased exposure parameters, especially in TRA, whereas diabetes mellitus was predictor of increased DAP. The use of 1 or 2 diagnostic catheters was associated with reduced DAP and FT.

Conclusion TRA is associated with increased FT. Hypertension and ascending aorta aneurysm are adversely affecting exposure parameters. With TRA and especially RRA is feasible the use of fewer diagnostic catheters in patients undergoing diagnostic coronary angiography.

The author hereby declares no conflict of interest

0570

Association between low bone mineral density and coronary artery disease

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Background Many studies describe a relationship between brittle bones and cardiovascular disease.

The physiopathology may be explained by the osteoprogerin (OPG) that protects the vascular wall and inhibits the RANK-RANKL system which is a strong inhibitor of osteoclasts.Thus it seems interesting to assess the prevalence of osteoporosis and osteopenia in patients with a confirmed coronary heart disease.

Material and Methods This study enrolled 46 patients who underwent a coronary angiography for chest pain. We identified two groups of patients:

– Group 1: patients with significant coronary artery disease.

– Group 2: patients with normal coronary angiography.

All patients had a physical exam, a phosphocalcic investigation and bone mineral density (BMD).

Results The mean age of the population was 66.7±6.5 years old .52.17% were women. Among the 46 patients, 21.7% had an osteoporosis, 41.3% an osteopenia and 37% had a normal bone mineral density. 52% des 52% of the studied population had significant coronary artery disease, 48% had a normal coronary angiography. At the statistical analysis, prevalence of osteoporosis and osteopenia was significantly higher in group 1 than in group 2 (p<0,001).

▶

Conclusion The association between osteoporosis and cardiovascular disease is a reality. However mechanisms are not well known.Thus it could be interesting to suggest a DXA to coronary patients and a large cardiovascular investigation for osteoporotic patients.

The author hereby declares no conflict of interest

0517

Clinical utility of systolic and diastolic tissue Doppler imaging in term of prognostic markers in acute coronary syndrom

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Introduction evaluation of filling pressures and longitudinal systolic left ventricular function in the acute coronary syndrom (ACS) isn't common practice. Our aim is to demonstrate the prognostic of tissuedoppler mitral to ACS.

Material and Methods prospective study of 6months included all patients admited for STEMI. Exploration of diastole was performd by studying the profile mitral annulus and the longitudinal systolic function by DTI of left ventricular.

Results A total of 124 patients.the mean age was 61±10years old. A male predominance of 73%. Hypertension and diabetics was the frequent cardiovascular factor. Elevation of filling pressure was significantly correlated with the risk of hospital mortality (p<0,05) ans occurence of major cardiovascular events (p<0,005). A value of S'VG<4cm/s is predictive of the risk of death and major cardiovacsular event (p<0,05).

Conclusion evaluation with DTI in ACS proves interesting in the risk stratification to identify groups must benefit from intensive treatment.

The author hereby declares no conflict of interest

0114

Association between beta-blocker therapy and mortality in patients without heart failure or severe left ventricular dysfunction after acute myocardial infarctions. The FAST-MI 2005 registry

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Background Because most randomised trials assessing beta-blocker therapy after acute myocardial infarction (AMI) antedate the era of reperfusion and modern secondary prevention, there are discrepancies among guidelines regarding their use in this setting. We analysed data from the French registry on ST- and non-ST-elevation Myocardial Infarction (FAST-MI) 2005, to assess the impact of early prescription and prolonged beta-blocker therapy after AMI.

Methods FAST-MI included 3,670 consecutive patients with AMI throughout France at the end of 2005. Detailed therapy at discharge and over follow-up (5 years) was recorded. We studied associations 1) between beta-blockers at discharge and one-year mortality, 2) between persistence of beta-blocker therapy at one year and 5-year mortality. Cox multivariate analysis and propensity score matching were used.

Results Of 2,727 patients with no history of heart failure and no left ventricular dysfunction, 2,168 were prescribed beta-blockers at discharge (80%). One-year mortality was lower in patients on beta-blockers (4.7% vs 12.2%), adjusted hazard ratio 0.76, 0.53-1.10. Among the 1,630 patients discharged on beta-blockers, alive at one year, and with medical prescriptions available, 184 (11%) had stopped beta-blockers. Five-year mortality was 8.8% in patients who continued beta-blockers, versus 13.0% in those who discontinued. Adjusted hazard ratio for 5-year death was 1.01 (0.59-1.73). Propensity score analyses confirmed these findings.

▶

Conclusion Our results suggest that discontinuing beta-blockers beyond one year has no deleterious impact, but that early beta-blocker treatment may be beneficial. Until further randomised trials are performed, these data can provide useful information for future recommendations on beta-blocker use after AMI.

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0186

Are coronary patients on lipid-lowering therapy in Europe achieving the recommended LDL-C target? Results from the Dyslipidemia International Study (DYSIS) II Europe

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Background Current guidelines recommend a low-density lipoprotein cholesterol (LDL-C) target of <1.8mmol/l for coronary patients and the administration of high potency statin therapy.

Purpose Our study documents real world lipid target achievement, including distance to target, among patients with stable coronary heart disease (CHD) and patients surviving an acute coronary syndrome (ACS) event in Europe.

Methods DYSIS II is a multicountry, observational cross-sectional chart review conducted in 257 sites throughout Belgium, France, Germany, Greece, Ireland, Italy, and Russia. Two distinct patient cohorts were enrolled: patients surviving an ACS event and patients diagnosed with stable CHD. Full lipid profiles were available within 24 hours of hospital admission for ACS patients and 0-12 months prior to enrollment for CHD patients. Patients were on lipid-lowering therapy (LLT) ≥3 months and not participating in clinical trials involving medication. Patient characteristics, risk factors, treatment patterns, and laboratory values were collected. LDL-C target achievement was assessed based on ESC/EAS guidelines.

Results 880 ACS and 2778 CHD patients currently on LLT were enrolled in Europe from 2012 to 2014. Only 23.2% (n=204) ACS and 29.6% (n=821) CHD patients achieved and LDL-C<1.8mmol/l, with median distance to LDL-C target in patients not a goal being 0.9mmol/l (IQR 0.4, 1.5) in ACS and 0.6mmol/l (IQR 0.3, 1.1) in CHD patients.

Conclusion Three out of four coronary patients did not achieve the recommended LDL-C target, even while being treated with LLT, primarily statin monotherapy.

Low potency statin treatment was found in both patient cohorts, despite the high risk of our patient population and the need for more intense LLT (as stressed by our distance to target findings).

Abstract 0186 – Table: Mean Lipid Values and LLT

	ACS Patients N=880	CHD Patients N=2778
Total cholesterol (mmol/l)	4.4±1.2	4.1±1.0
LDL-C (mmol/l)	2.6±1.0	2.3±0.8
Triglycerides (mmol/l)	1.6±0.9	1.5±0.8
HDL-C (mmol/l)	1.1±0.3	1.2±0.4
Non-HDL-C (mmol/l)	3.3±1.2	2.9±0.9
Atorvastatin equivalent dose (mg/day)	22±17	27±20
Statin monotherapy	87.2%	79.8%
Statin + ezetimibe	6.4%	11.6%
Statin + other non-statin (fibrates, omega 3 fatty acids)	2.4%	6.7%
Non-statin monotherapy	3.8%	2.0%

The author declares a conflict of interest: Merck employee