Preporuke za daljnji rad PCI u okolnostima pandemije COVID-19

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Webinar: PCI u okolnostima pandemije COVID-19
Where have all the STEMIs gone?

✓ In the Lombardy region of Italy STEMI cases are down by an estimated 70%, the number of hospitals offering 24/7 cath lab services has been reduced from 55 to 13

✓ Spanish Society of Cardiology shows a drop of STEMI cases by 40%, in Madrid close to 80%

COVID-19 Linked to 38% Drop in US STEMIs after March 1, as compared with the 14-month period prior

No drop in Croatian STEMI s after March 1 compared with the 26-month period prior.
What could possibly drive STEMI rates down

✓ Pollution levels are dramatically reduced with so many cars off the road

✓ No stressful commutes to work in traffic or on mass transit may also be reducing daily stressors

✓ Patients, trapped at home, are less physically active and are sleeping more, taking their medications, having lower blood pressures

✓ Maybe people are dying at home

✓ But if you look at mortality curves in the United States in March 2020, mortality is down

Who Should Head to the Cath Lab in the COVID-19 Pandemic (SCAI recommendations)

✓ Primary PCI should be first-line therapy

✓ As systems get overrun you’ll have to make that decision to give thrombolytics

✓ Fibrinolytic therapy may be considered in low-risk STEMI cases, such as those with an inferior STEMI without right ventricular involvement or lateral MI without hemodynamic compromise

✓ Each hospital will need to address how “overwhelmed they may be and what they can do”. This decision ultimately depends on the availability of staff

Who Should Head to the Cath Lab in the COVID-19 Pandemic

✓ Avoid endotracheal intubation in the cath lab as much as possible, but if it must be done, to remove all nonessential personnel from the lab to avoid potential exposure to aerosolized virus

✓ If a COVID-19-positive/suspect patient is brought into the cath lab, the lab requires extensive cleaning, something than can decommission the room for many hours

✓ Single procedure room should be designated for care of COVID-19 patients

✓ Anything that isn’t needed in the lab should be removed and the number of staff should be limited as much as possible.
FIGURE 2. Protocol for emergency percutaneous intervention in patients positive or suspected of COVID-19 infection. *University Hospital Dubrava for Zagreb and northwestern Croatia

PCI = percutaneous coronary intervention; UH = University Hospital; cath lab = cardiac catheterization lab; ER = emergency room.
What should we expect in the future?

✓ We need to think about what's going to happen from the absence of elective procedures:

- outpatient activity is being curtailed
- people aren’t being assessed
- elective procedures aren't being performed

✓ Hospitals will see a resurgence of acute conditions largely “cured” by primary PCI programs in recent years:

- mechanical complications
- ventricular septal defects post-MI
- papillary muscle rupture
- LV thrombus
Conclusion (pPCI)

✓ Balance between the risks of staff exposure and the potential for patient benefit

✓ Necessity of *rationally selecting patients* for interventional cardiologic treatment

✓ All patients with suspected COVID-19 infection should be tested immediately

✓ pPCI only in case of STEMI or hemodynamical instability in NSTEMI

✓ Acquisition of all necessary *protective gear* and their proper use

✓ Formation of *active and reserve cardiological teams* that guarantee uninterrupted work in case of infection

✓ Sometimes accept a *less than perfect primary result*
Conclusion (fibrinolysis)

✓ In case of STEMI and pPCI being impossible to perform under the conditions described above, fibrinolysis should be applied.

✓ It is likely that fibrinolysis will be the therapy of choice for most patients positive for COVID-19 but also for those in whom infection is suspected, especially if emergency PCI requires transport from the county hospital to a PCI center.

✓ In case of unsuccessful fibrinolysis, rescue PCI can be considered.
The decision on applying acute interventional treatment should be made individually for every patient and under full authority of the interventional team responsible for their treatment.