

**Title: Economic Burden of Cardiovascular Disease in the EU**

**Participants: Dr Alan Bulava**

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## **Dr Alan Bulava**

"My name is Alan Bulava. I come from Czechia, from the Budejovice hospital. I am chief of the department of arrhythmology and cardiac pacing. So responsible for the whole programme of arrhythmology programme at our institution.

### Reasoning Behind the Study

The rationale behind the study was that we wanted to fill a gap because we do not know what exactly the post-procedural treatment of patients should be undergoing concomitant AF Ablation after cardiac surgery. Because recent literature indicates that about a quarter of patients undergoing cardiac surgery suffer from atrial fibrillation. And of course, in absolute numbers, it's a huge number. And even if you consider patients with mitral valve disease, it's even more than 50% of such patients. And nowadays, according to STS guidelines endorsed in 2017, these patients should be Ablated. So cardiac surgeons should perform cryomaze procedure to improve the patient's outcome, especially during mitral valve surgery, which is class 1A indication. And even with aortic valve surgery or simple coronary artery bypass grafting is a class 1B indication. But of course, the main drawback is that we do not know in which percentage these patients relapse with atrial fibrillation, so they reappear with atrial fibrillation again. So, we wanted to fill this obvious knowledge gap and that's why we initiated this investigator-initiated or open-label? Open label randomised control trial.

### Patient Population and Study Design

The patient population was consisting of patients with non-paroxysmal type of atrial fibrillation. So, either persistent atrial fibrillation or long-standing persistent atrial fibrillation undergoing cardiac surgery procedures. So, either coronary artery bypass grafting or end valve repair. We excluded patients with extremely dilated atria, and we

also excluded patients who underwent previous RF Ablation procedure for atrial fibrillation.

### Key Findings

So, the key findings were that we were able, using hybrid approach, so deferred AF Ablation, catheter Ablation after cardiac surgery, after cryomaze, we were able to reduce the incidence of atrial fibrillation atrial tachycardia by 62%. So, the relative reduction risk was 62%. The absolute risk reduction was 30%. So, from 70% recurrence rate down to 40% recurrence rate, which is really huge and significant impact, taking into account that the monitoring of these patients was really intense. All the patients had cardiac implantable monitors, so we knew about almost, I would say almost every single AF recurrence.

### How These Findings Should Impact Practice

This was our second question because it's not only about the AF reduction. So, to really propose this treatment, we should have some clinical outcome proven as well. And our primary clinical endpoint was reduction of hospitalisation for AF or ATEC hospitalisation for heart failure, significant bleeding or cardioembolic events. And all this combined clinical endpoint was also significantly reduced by 54%.

### Further Study Required

Yeah, I think this is the first randomised trial in this field, obviously, and probably it should be confirmed by other randomised trials of that kind, which would then push a little bit more on the clinical impact. But basically, the finding of our trial is that we should propose the patients undergoing concomitant surgery for atrial fibrillation to undergo another procedure consisting of catheter ablation procedure to improve the clinical outcome and to improve or to reduce the burden of atrial arrhythmias.”