# Treatment of heart attacks – what are we lacking?

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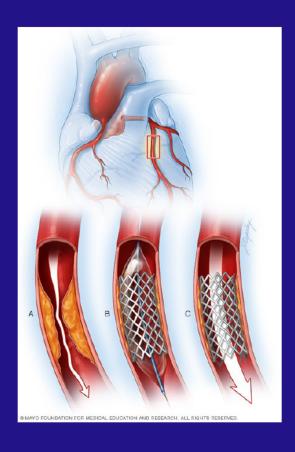
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# I want to emphasize on...

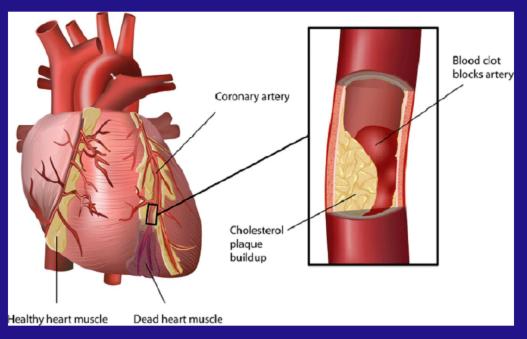
- CATH LAB
- PRIMARY ANGIOPLASTY





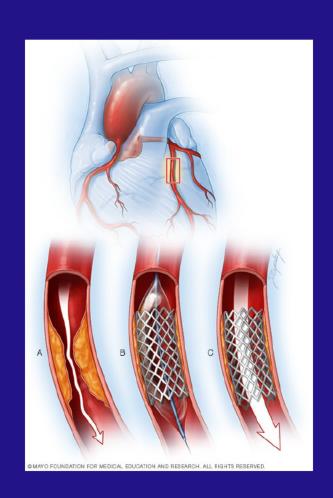
# What causes heart attacks and how are they diagnosed?

- "Large" vs "small"
- Symptoms
- ECG/EKG
- Physical
- Enzyme level
- Echo scan

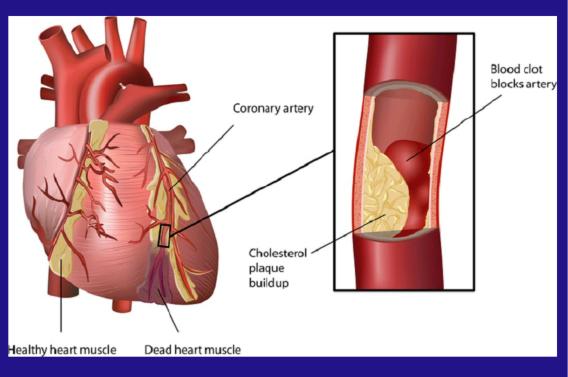


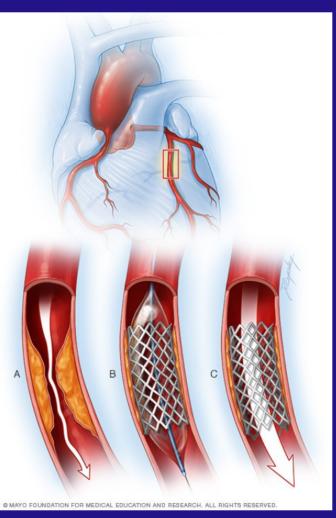
#### How are heart attacks treated?

- Emergency angiogram and stenting (primary angioplasty)
   STANDARD OF CARE, DONE IN VICTORIA AND VANCOUVER (and most of the regions in the G7 countries)
- Clot buster drug and deferred stenting – DONE IN NANAIMO
- Time sensitive 2 HOURS



# Heart attacks, blocked arteries and stents





### Primary angioplasty is better

- Stenting and unblocking artery straightaway is better than using clot busters
- More likely to unblock artery
- Better survival in the long term
- Accepted standard of care lots of infrastructural and logistical changes made in
- North America, W. Europe and many parts of Asia

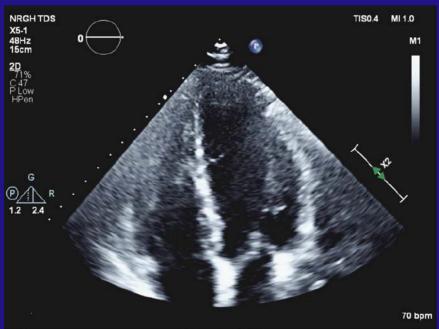
## **Angiogram showing blocked artery**





### Damage to heart pump (left ventricle)



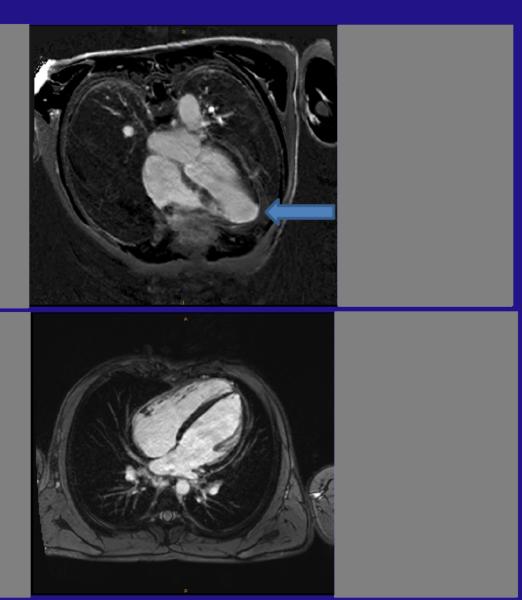


Heart attack Normal

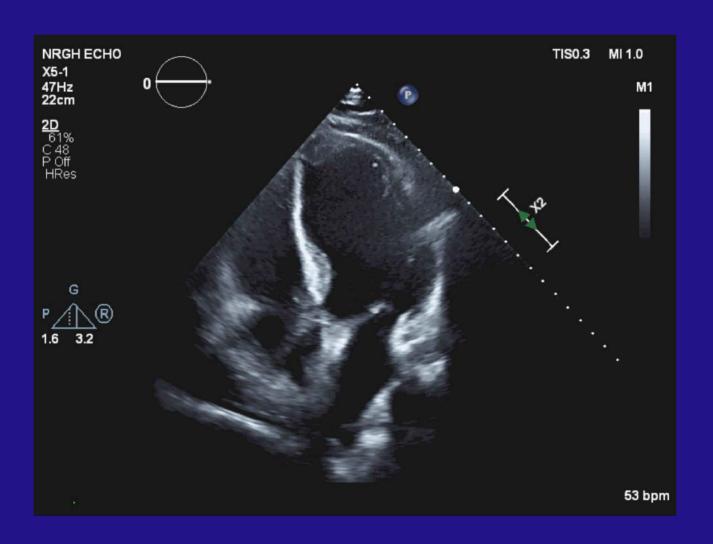
## Cardiac MRI showing scar

Scar

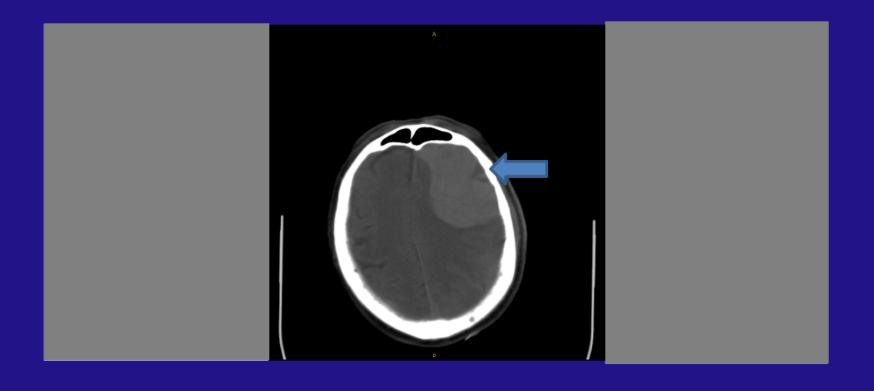
**Normal** 



### **Clot in the heart**



# Things can go sideways with clot busters....big time



#### **CATH LAB**

#### cardiac catheterization laboratory



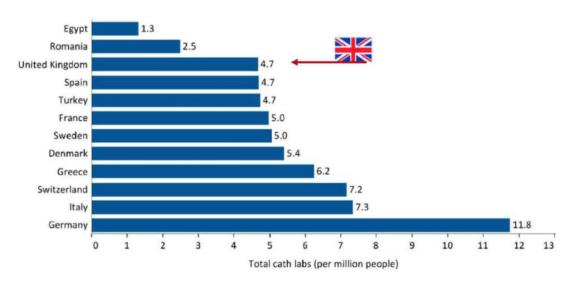
# 98 Cath labs in the UK population 65 million



## It's better in W. Europe!

Total cath lab tables (per million people), 2016 or latest year

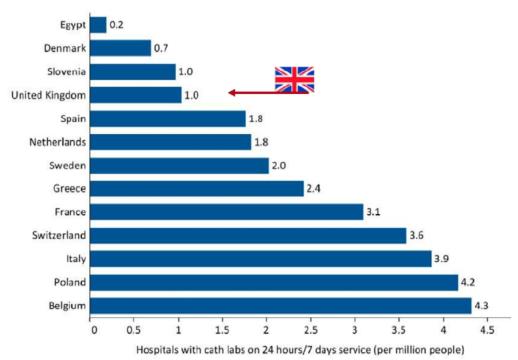




Source: Data on total cath lab tables are from the EAPCI White Book database, 2016 (except Turkey: 2017), data on file. Data unavailable: Belgium, Netherlands, Poland, Slovenia. Notes: Germany: The numbers of cath lab tables may be higher. For hospitals providing interventional cardiology we counted 1 cath lab table for each

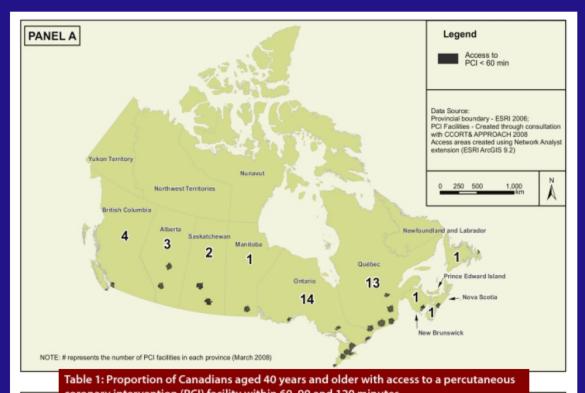
# Hospitals with cath labs on 24 hours/7 days service (per million people), 2016





Source: Data on hospitals with cath labs on 24 hours/7 days service are from EAPCI White Book database, 2016, data on file. Data unavailable: Romania, Turkey, Germany. Notes: United Kingdom: Defined as labs that are the destination for paramedics diagnosing STEMI in the community.

#### Access to primary angioplasty in Canada



	coronary intervention (PCI) facility within 60, 90 and 120 minutes					
PANE		Total population aged ≥ 40 yr	Time to PCI facility; % of population with access			ple
	Province		60 min	90 min	120 min	)0 sq km
	British Columbia	2 084 315	58.2	63.0	64.2	100 I
	Alberta	1 449 305	63.3	67.7	71.9	)00 sq kn
	Saskatchewan	466 305	42.0	45.3	52.9	
	Manitoba	546 075	63.4	68.8	73.3	š:
	Ontario	5 877 500	72.6	83.1	91.6	ada 2006.
	Quebec	3 863 045	68.9	80.2	86.7	N
	New Brunswick	381 635	15.8	19.2	24.0	A
	Newfoundland and Labrador	265 965	32.8	35.5	40.7	
	Nova Scotia	482 335	36.2	41.9	54.6	

63.9

72.4

78.8

15 522 505

Canada

## Having a cath lab locally

- A CATH LAB will enable
  - Primary angioplasty for heart attacks (and not clot busters)
  - Shorter waiting times for angiograms and stents
  - Lesser number of ambulance rides back and forth
  - Lesser emergency transfers by choppers
  - Shorter hospital stay
  - Improved patient safety
  - Cost savings

# Why does a centralized approach not work for us?

- The "hub" of the so called hub and spoke island located at one end of the island
- Long road trips back and forth should be kept to a minimum
- Ambulances don't come cheap!
- Expanding services in Victoria may cut short waiting lists but primary angioplasty will still not be feasible – think, why do we have TWO ferry hubs ....in Nanaimo and Victoria

#### Are we living in the wrong post code?

- Are we getting a used car for the price of a new one?
- Become aware of the scale and urgency of the problem
- Make some noise
- Please donate your time, efforts and monetary (hosp foundation)

# Thank you for your time and patience!