



LET'S GET YOU HOME! ADPS & TROPONINS IN THE ED

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NO DISCLOSURES

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YES EMERGENCY MEDICINE
SPECIALTY RECOGNITION

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44 Y/O F W/CHEST PAIN

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ED PATIENTS DISCHARGED W/SINGLE TROP

50%

WASSIE ET AL. JAMA NETWORK OPEN 2021

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COST REDUCTION

20%

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BUT... IS IT SAFE?



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IMPORTANT CONSIDERATIONS

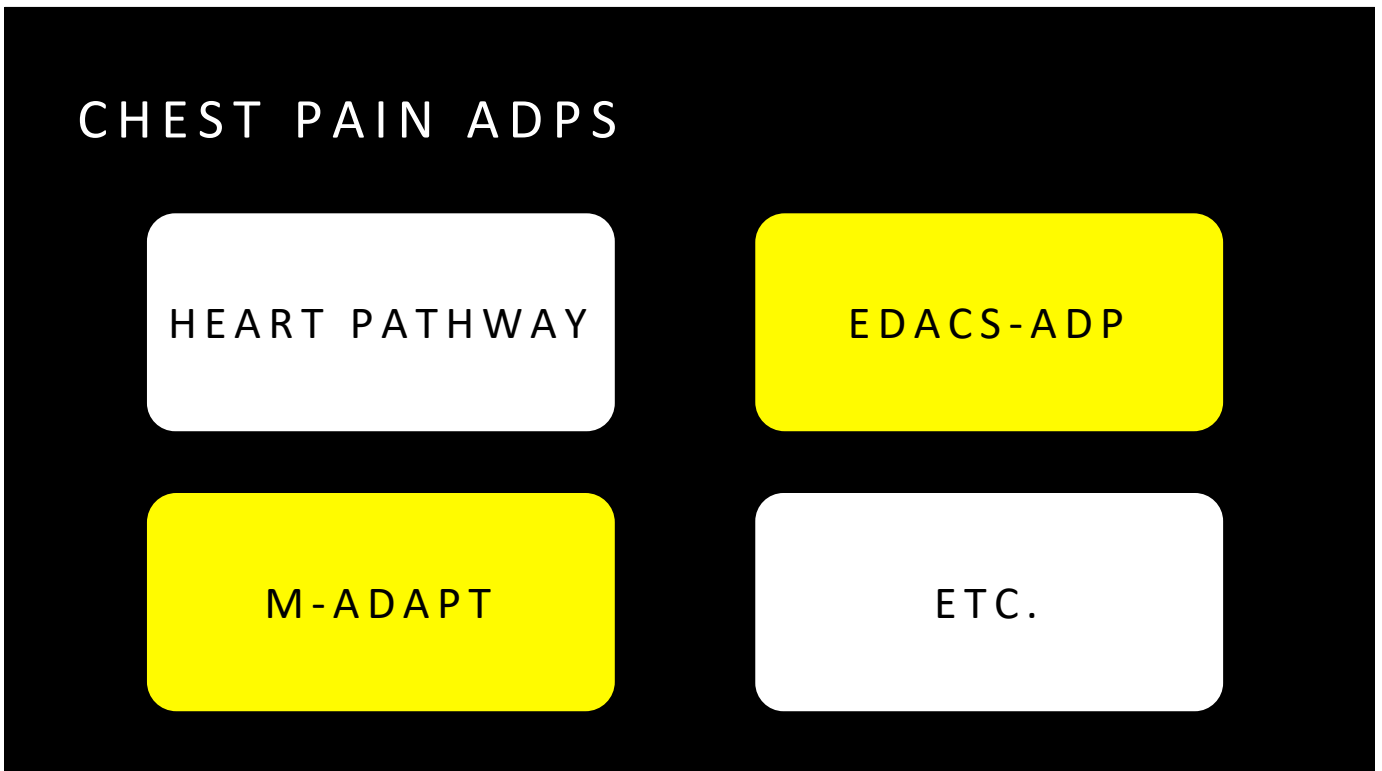
LOW RISK PTS

TROPONIN ASSAY

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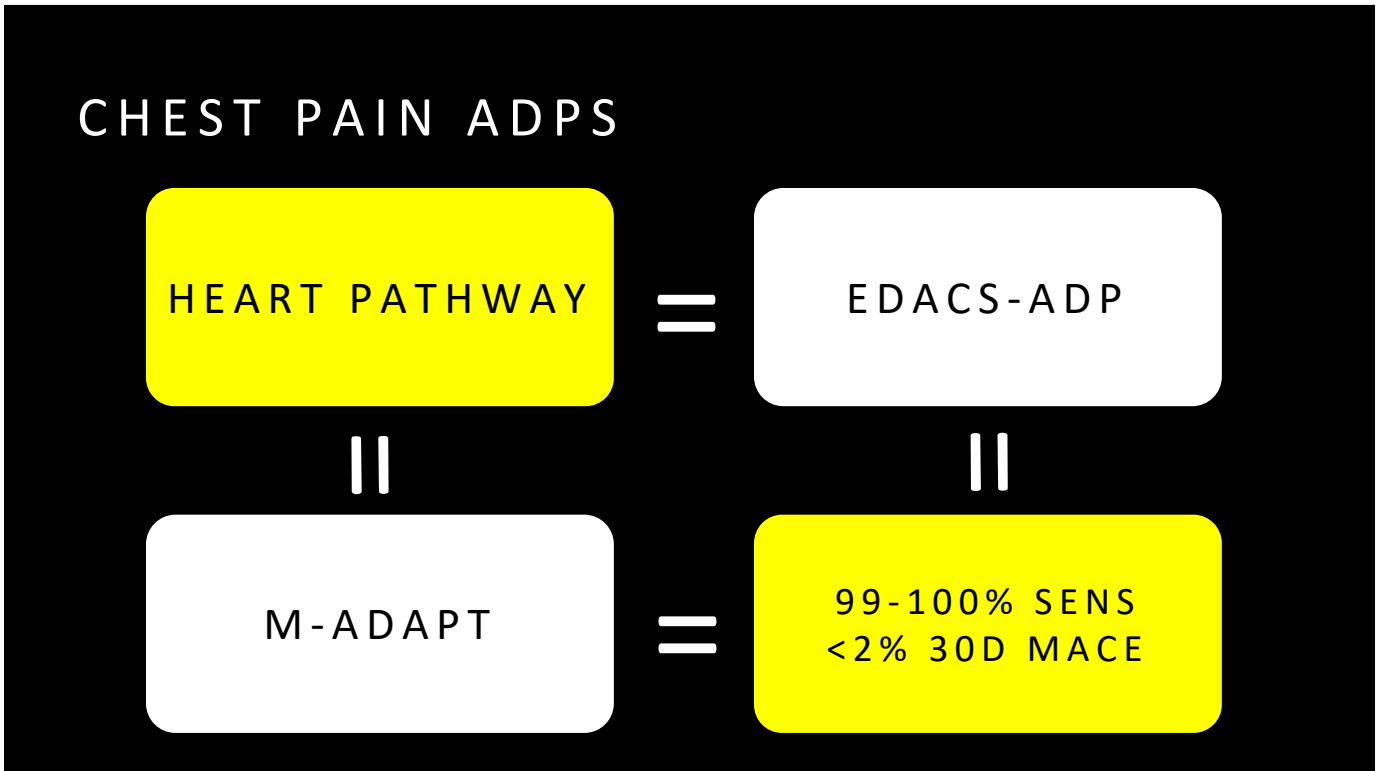
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MY TAKE:

YOUR HEART
SCORE IS 3

TROPONINS

HS TROPONINS

DETECTABLE IN 50% HEALTHY POPULATION

HIGH ANALYTIC PRECISION - COV <10%

QUICKER
DETECTION

QUICKER
RULE OUT

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GUIDELINES



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AMERICA (AHA/ACC) SAYS:



HS TROPONIN = BEST

>3 HRS

NEGATIVE HS TROP
= DISCHARGE

<3 HRS

Δ HS TROP 1-3 HRS
 Δ CONV TROP 3-6 HRS

GULATI ET AL. CIRCULATION 2021

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EUROPE (ESC) SAYS:



HS TROPONIN = BEST

0H/1H OR 0H/2H HS TROP
IRRESPECTIVE OF
SYMPTOM ONSET

BYRNE ET AL. EUR HEART J 2023

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0/1HR RCT TRIAL

NOT INFERIOR TO STANDARD CARE

0/1HR

1.1%

(18/1646)

0/3HR

1.0%

(16/1642)

P < 0.001

CHEW ET AL CIRC 2019

21

0/1HR RCT TRIAL ED LOS

0/1HR

4.6HR

0/3HR

5.6HR

P < 0.001

CHEW ET AL CIRC 2019

22

0/1HR RCT TRIAL D/C HOME

0/1HR

45.1%

0/3HR

32.3%

P < 0.001

CHEW ET AL CIRC 2019

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0/1HR RCT TRIAL INVASIVE TESTING

0/1HR

7.5%

0/3HR

11%

P < 0.001

CHEW ET AL CIRC 2019

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MY TAKE ON 0/1H:



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SINGLE TROPONIN



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SINGLE TROPONIN

4/560 (0.7%) NEGATIVE
INITIAL TROP HAD AMI

SINGLE TROP SENS

99.1%
(95% CI 96.7-99.9)

SINGLE TROP NPV

99.6%
(95% CI 98.5-100)

NOWAK ET AL. BIOMARKERS 2017

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REMEMBER AHA/ACC:



>3 HRS

SINGLE NEG HS TROP
= DISCHARGE

GULATI ET AL. CIRCULATION 2021

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EUROPE'S TAKE:



0/1HR HS TROPS FOR ALL

FACILITATES PROCESS
& PATIENT SAFETY

BYRNE ET AL. EUR HEART J 2023

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MY TAKE:



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PREHOSPITAL POC

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ARTICA TRIAL - PREHOSPITAL POC

RISK OF MACE

INTERVENTION

0.5%

CONTROL

1%

RISK DIFFERENCE -0.5% (95% CI 96.7-99.9)



CAMARO ET AL. EUR HEART J 2023

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FAMOUS TRIAL - PREHOSPITAL POC

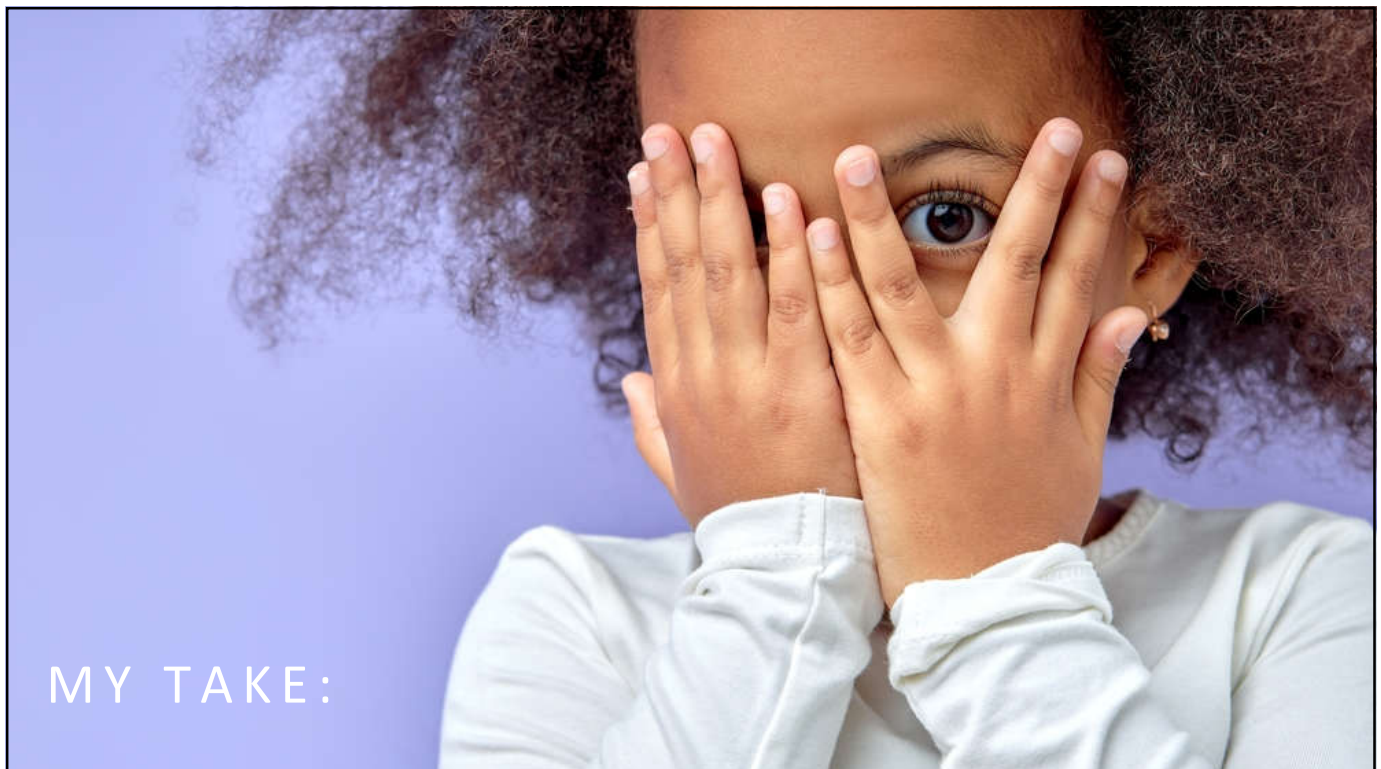
RISK OF MACE HEART 0-3

COHORT

0%

CAMARO ET AL. EUR HEART J 2023

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SUMMARY

ADPS ARE SAFE

PICK WHICHEVER ADP

0/1HR PROTOCOLS ARE SAFE

SINGLE TROPS MAY BE SAFE

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