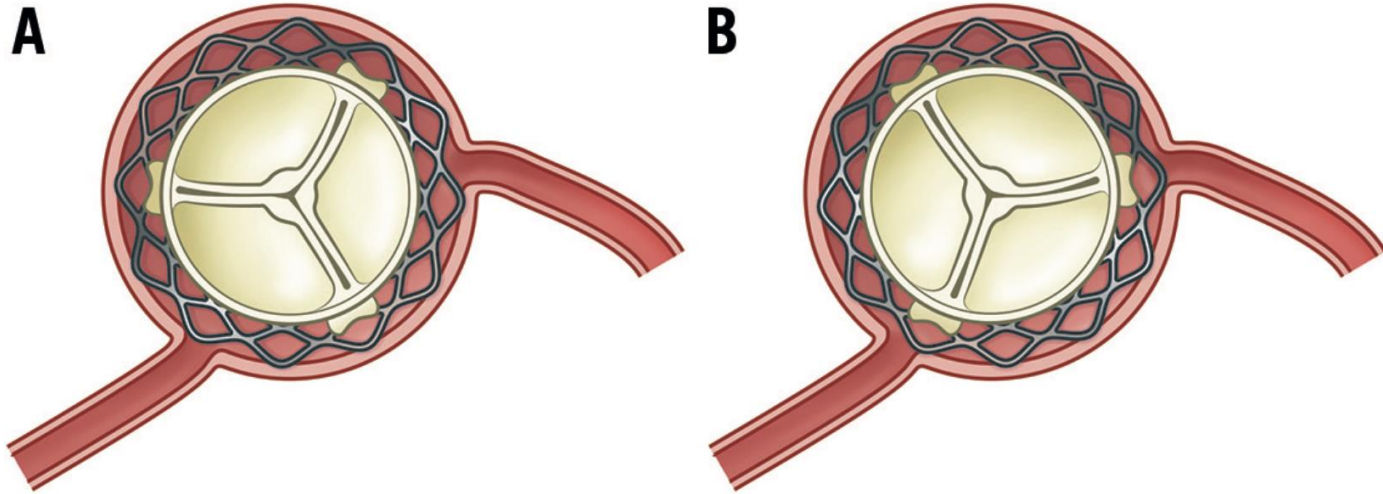


# Commissural alignment with Acurate Neo 2

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# Commissural alignment – what it is



Commissural alignment



Severe commissural misalignment

# Commissural alignment – why?

“Lifetime management” – ready for TAVI in TAVI

- Improve coronary access
- Facilitate future leaflet modification (BASILICA)
- ? Reduce PVL
- ? Improve sinus washout
- ? Reduce leaflet thrombosis

# Understanding 3-cusp and cusp overlap views

Commissural alignment is having ONE stent post where you have TWO coronaries (in inner curve)

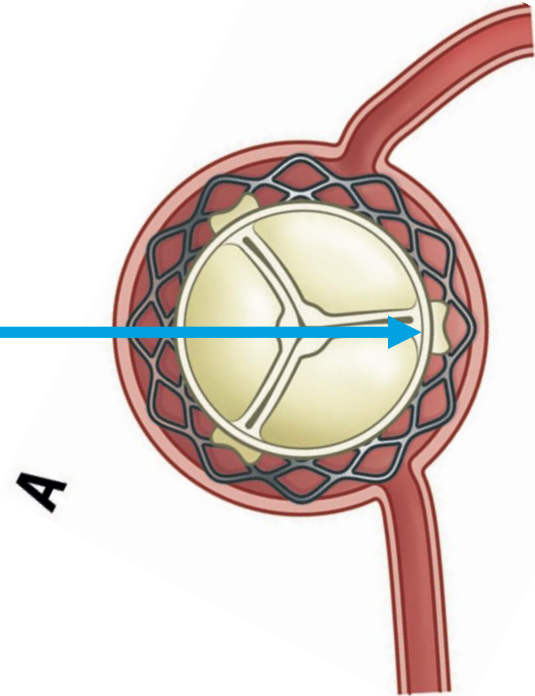
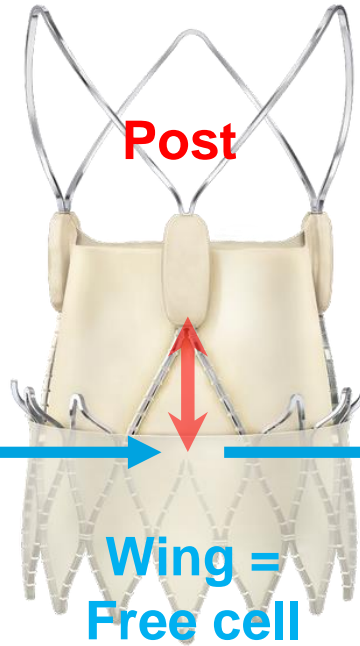
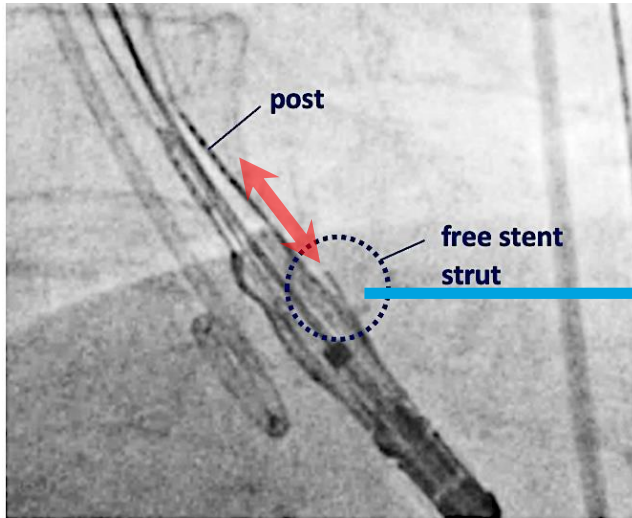


3 cusp (LAO)  
LCA and RCA on different sides



Cusp overlap (RAO)  
LCA and RCA on inner curve

# Acurate neo2 features for alignment



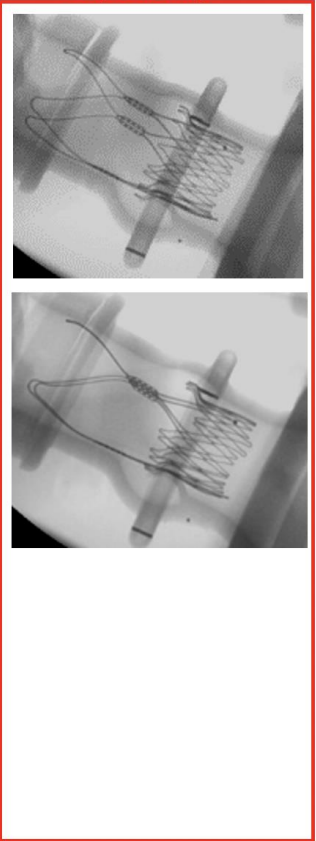
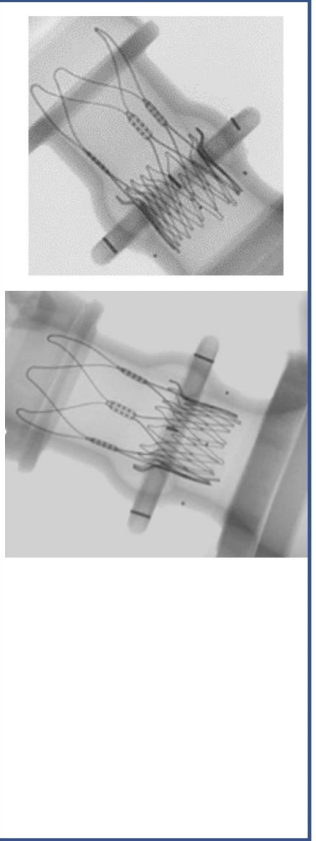
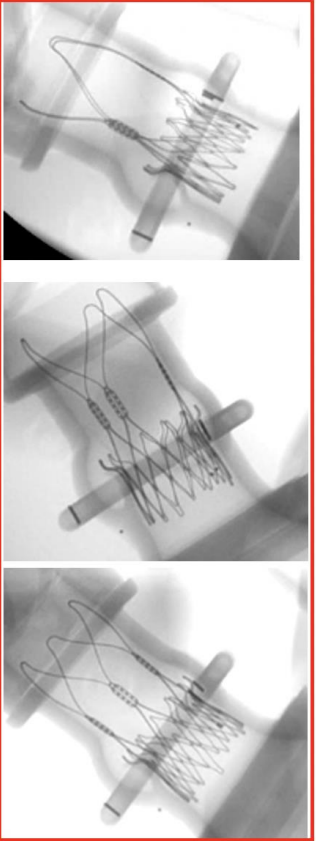
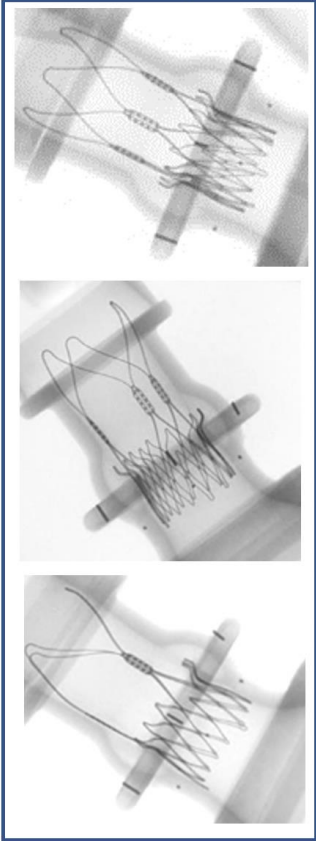
# How does alignment look on fluoro?

3 cusp view

Cusp overlap

3 cusp view

Cusp overlap



# Karolinska Commissural Alignment Technique

## Valve insertion

- Insert valve into sheath with port down at **6 o'clock** and advance marker to **top of pigtail**

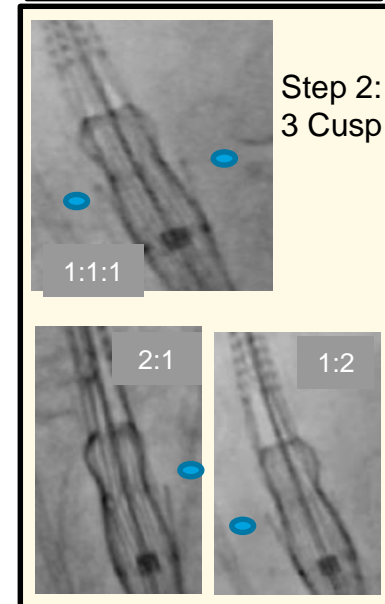
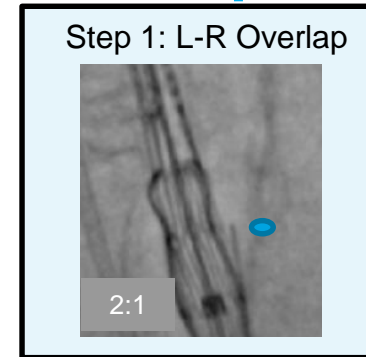
## Step #1: Confirm in cusp overlap

- Perfect (2:1) or misaligned (1:2)

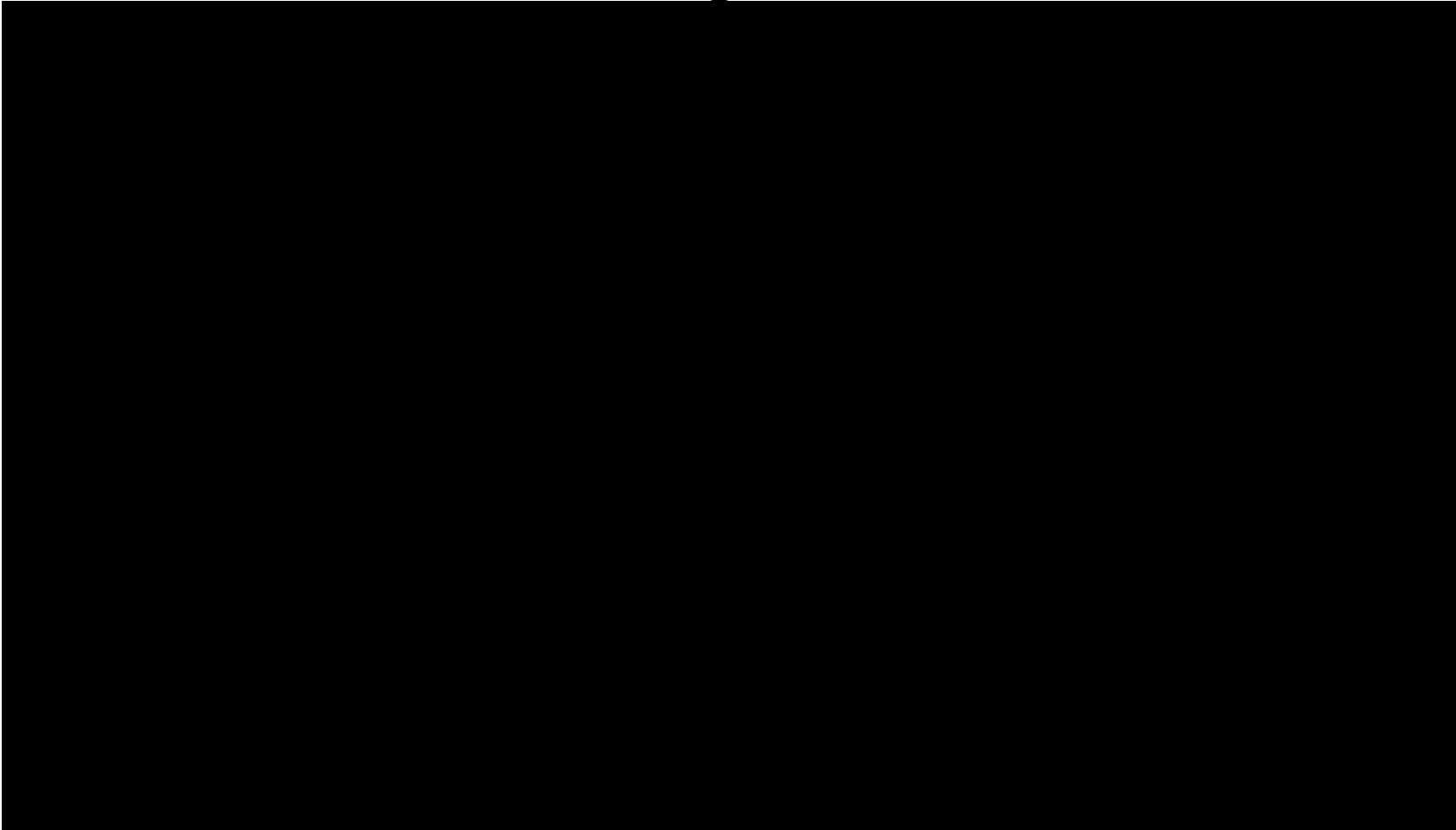
## Step #2: Achieve in 3 cusp

- Achieve 1:1:1 posts and 2 equal wings
  - If 2:1 go CW (**T**wo **O**uter **R**otate **C**lockwise = **TORC**), if 1:2 go CCW
- After alignment is achieved **cradle the handle** to allow torque to dissipate

## Advance and deploy

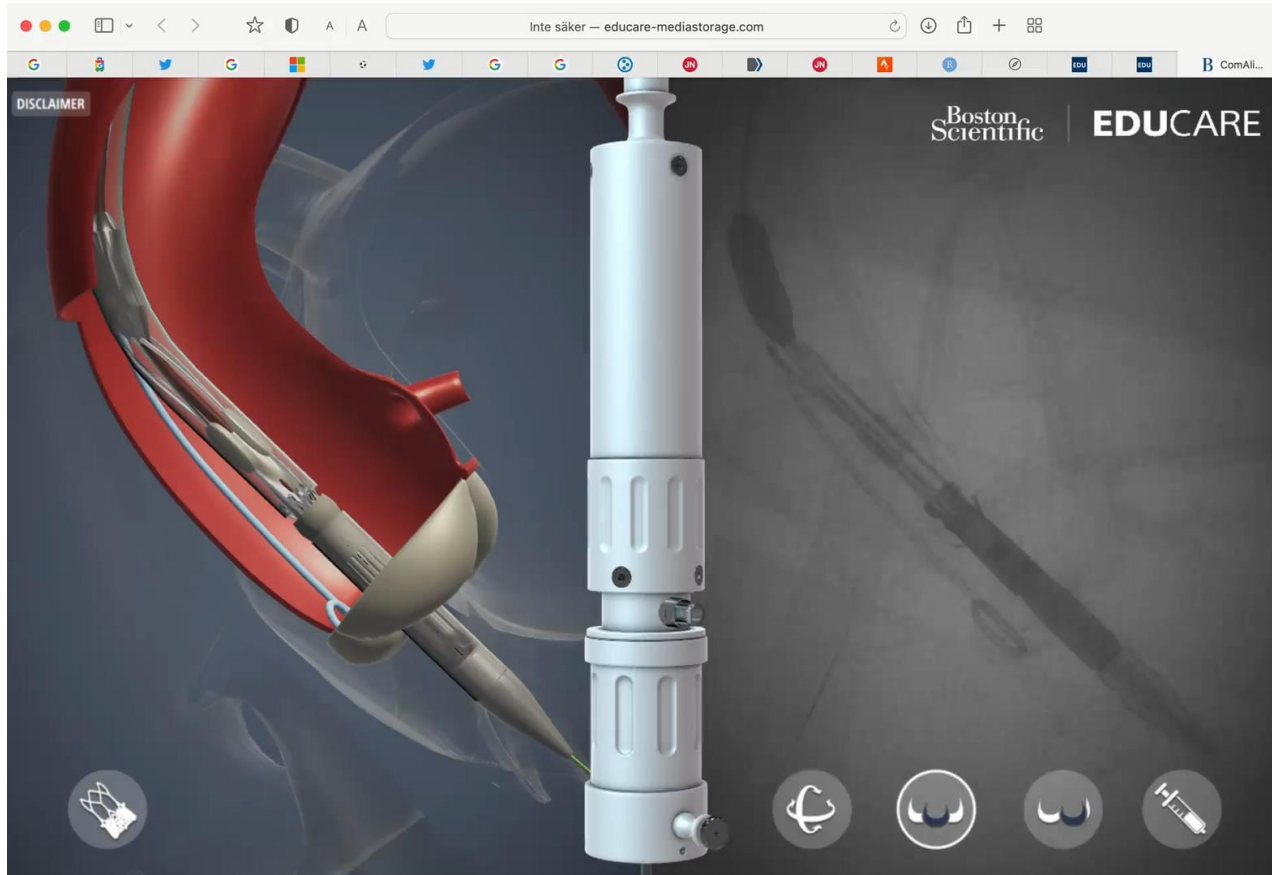


# Acurate ComMISSURAL Alignment case 2021





# Acurate Alignment online simulator

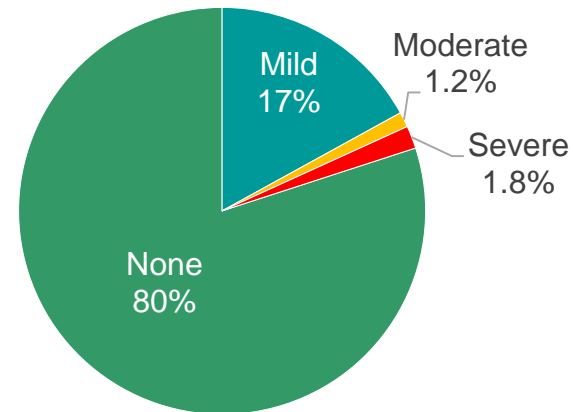


# Essential Results: Efficacy of alignment

- Out of 170 patients, 167 (98.2%) were able to be analyzed for alignment

- 97% of patients had no significant misalignment

- 80% none
- 17% mild
- 1.2% moderate
- 1.8% severe

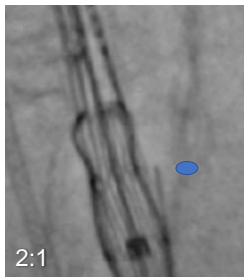


- Average alignment time 92 seconds

# Analysis of Initial Orientations with flushport 6 o'clock

## Step #1: Confirm

In L-R overlap view:  
Aligned (2:1) or misaligned (1:2)



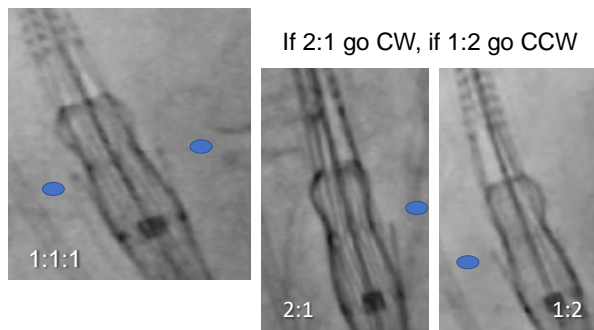
Initial R-L Orientation  
n (%)

Wing on R	83 (54%)
Intermediate	40 (26%)
Wing on L	31 (20%)

- Between 20-46% of valves initially misaligned with flushport alone

## Step #2: Achieve

In 3 cusp view:  
Achieve 1:1:1 posts & 2 wings



Initial 3-cusp Orientation  
n (%)

2 Wings	38 (25%)
2 Post on Outer Curve	36 (24%)
2 Post on Inner Curve	78 (51%)

- Only 25% of cases optimally aligned without rotation
- 1/3 CW, 2/3 CCW rotation

# Commissural alignment with Acurate neo2

- Ideal with multiple radiopaque markers and torqueable catheter
- Combination of 3-cusp and R-L-overlap views
- Follow simple rules for rotation
- Possible in almost all patients
- High success rate (97%)
- Fast (92 seconds)