

## **SIMULATION ET TELEMEDECINE**

Simulateur MENTICE en cardiologie interventionnelle: retour d'expérience

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**FELLOWS-IN-TRAINING & EARLY CAREER PAGE**

# Managing Pregnancy as an Interventional Cardiologist Fellow-in-Training

## My Experience With a Simulator

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## Women in cathlab

- 14% of ACC fellows-in-training are women
- ≠ Women rate in Cardiology has risen from 8 to 25% over the past 30 years<sup>1</sup>
- « On call/on duty » rotations in the cathlab, radiation exposure during pregnancy and fetal harm risk
- 63% of ACC female physicians have children vs 88% of male physicians<sup>2</sup>

<sup>1</sup>Wenger NK. Women in cardiology: the US experience. Heart 2005

<sup>2</sup>Limacher MC, Zaher CA, Walsh MN, et al. The ACC professional life survey: career decisions of women and men in cardiology: a report of the Committee on Women in Cardiology. J Am Coll Cardiol 1998

# Carrier choices and radiation

**Table 4. Career Choices Regarding Radiation**

	Men (n = 87)	Women (n = 218)
Radiation exposure influenced career choices	17%	44%*
If yes, how?		
Decided not to have children	1%	4%
Planned children around radiation exposure	15%	50%*
Chose career with minimal exposure	47%†	47%‡

\*p < 0.0001, women versus men. †Represents 41 men, or 8% of respondents.  
 ‡Represents 115 women, or 23% of respondents.

## Interventional cardiology training in France

- After four years internship in cardiology department
- 2-year post-doc academic degree
- Poor place for pregnancy

# Pregnancy and radiation-free training

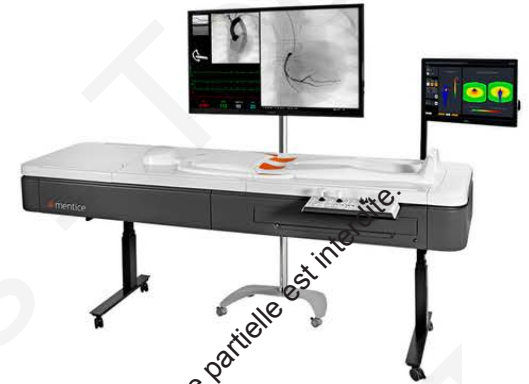


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# Simulator of interventional cardiology

- Mentice G5
- 14 hours teaching program
- Unrestricted self training
- Coronary and left ventricle angiogram (>400 cases), percutaneous coronary intervention, virtual radiation management, acute myocardial infarction management
- Challenging discussion



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## Advantages

- Realistic visual and tactile feedback
- Repeating techniques with safety and no cost
- Constructive stressless debriefing with supervisor
- Monitored virtual radiation exposure and contrast volume
- 3-D visualization of coronary arteries

## Limitations

- No stress management
- No arterial puncture simulator
- Limited access to the simulator
- Need for a supervisor



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# Perspectives

- Innovative learning process
- Radiation free for pregnant fellows in training
- Should be added into first-year cardiovascular curriculum (pilots, surgeons)
- Structured teaching (Identified teacher, simulation course programme, evaluation, research)
- A way to fill the sex gap in Interventional Cardiology?





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