

Importance de la considération du **sexe** dans la recherche scientifique : En cardiologie

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Déclaration d'intérêt

- Intervenant, Board : AstraZeneca, Biotronik, Bayer, Boehringer Ingelheim, Novo Nordisk, BMS, Organon, Exeltis, Novartis, Terumo
- Bourse de recherche SFC : Abbott, AstraZeneca, Bayer, Boston Scientific France, Daiichi Sankyo, Novartis, Pfizer

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DIFFERENCES IN THE USE OF PROCEDURES BETWEEN WOMEN AND MEN HOSPITALIZED FOR CORONARY HEART DISEASE

JOHN Z. AYANIAN, M.D., M.P.P., AND ARNOLD M. EPSTEIN, M.D., M.A.

Our findings reflect patterns that may not be limited to coronary procedures. The relative differences that we found are similar in magnitude to the sex differences reported for dialysis and kidney transplantation in patients with end-stage renal disease,²⁷⁻³⁰ suggesting the need to understand better how patients' sex influences patterns of medical care.

➤ **Moins d'exploration**

➤ **Moins de revascularisation**

ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation

The Task Force on the management of ST-segment elevation acute myocardial infarction of the European Society of Cardiology (ESC)

Recommendations	Class ^a	Level ^b	Ref ^c
Both genders must be managed in a similar fashion.	I	C	-
A high index of suspicion for myocardial infarction must be maintained in women, diabetics, and elderly patients with atypical symptoms.	I	B	189
Special attention must be given to proper dosing of antithrombotics in elderly and renal failure patients.	I	B	190

Gender Differences in Cardiovascular Therapy: Focus on Antithrombotic Therapy and Percutaneous Coronary Intervention

Juan Luis Gutiérrez-Chico · Julián Méndez



SEX-BASED DIFFERENCES IN EARLY MORTALITY AFTER MYOCARDIAL INFARCTION

VIOLA VACCARINO, M.D., PH.D., LORI PARSONS, B.S., NATHAN R. EVERY, M.D., M.P.H., HAL V. BARRON, M.D., AND HARLAN M. KRUMHOLZ, M.D., FOR THE NATIONAL REGISTRY OF MYOCARDIAL INFARCTION 2 PARTICIPANTS*

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REVIEWS

Presentation, management, and outcomes of ischaemic heart disease in women

Viola Vaccarino, Lina Badimon, Roberto Corti, Cor de Wit, Maria Dorobantu, Olivia Manfrini, Akos Koller, Axel Pries, Edina Cenko and Raffaele Bugiardini

Comparison of Adverse Outcomes After Contemporary Percutaneous Coronary Intervention in Women Versus Men With Acute Coronary Syndrome

Lakshmana K. Pendyala, MD, Rebecca Torguson, MPH, Joshua P. Loh, MBBCh, Sa'ar Minha, MD, Salem Badr, MD, Danny Dvir, MD, Israel M. Barbash, MD, Augusto D. Pichard, MD, and Ron Waksman, MD*

ORIGINAL RESEARCH ARTICLE

Is There a Sex Gap in Surviving an Acute Coronary Syndrome or Subsequent Development of Heart Failure?

AHA Scientific Statement

Acute Myocardial Infarction in Women
A Scientific Statement From the American Heart Association

Laxmi S. Mehta, MD, FAHA, Chair; Theresa M. Beckie, PhD, FAHA, Co-Chair; Holli A. DeVon, PhD, RN, FAHA; Cindy L. Grines, MD; Harlan M. Krumholz, MD, SM, FAHA; Michelle N. Johnson, MD, MPH; Kathryn J. Lindley, MD; Viola Vaccarino, MD, PhD, FAHA; Tracy Y. Wang, MD, MHS, MSc, FAHA; Karol E. Watson, MD, PhD; Annette K. Wenger, MD, FAHA; on behalf of the American Heart Association Cardiovascular Disease in Women and Special Populations Committee of the Council on Clinical Cardiology, Council on Epidemiology and Prevention, Council on Cardiovascular and Stroke Nursing, and Council on Quality of Care and Outcomes Research

Symptom Recognition and Healthcare Experiences of Young Women With Acute Myocardial Infarction

Judith H. Lichtman, PhD, MPH; Erica C. Leifheit-Limson, PhD; Emi Watanabe, MPH; Norrina B. Allen, PhD, MPH; Brian Garavalia, PhD; Linda S. Garavalia, PhD; John A. Spertus, MD; Harlan M. Krumholz, MD; Leslie A. Curry, PhD, MPH

Background—Prompt recognition

Circulation

ORIGINAL RESEARCH ARTICLE

Twenty Year Trends and in Young Adults Hospitalized With Myocardial Infarction

The ARIC Community Surveillance Study

EDITORIAL

Myocardial Infarction in Young Women: An Unrecognized and Unexplained Epidemic

Article, see p 1047

Viola Vac

Dossier/Mise au point

Épidémiologie de l'infarctus du myocarde chez la femme : des évolutions préoccupantes en France chez les femmes de moins de 65 ans

Sex-specific evaluation and redevelopment of the GRACE score in non-ST-segment elevation acute coronary syndrome: in populations from the UK and Switzerland: a multinational analysis with external cohort validation

Florian A Wenzel*, Simon Kraler*, Gerd H Ambler, Oliver Weston, Sandra A Herzog, Lorenz Raber, Olivier Muller, Giovanni G Camici, Marco Roffi, Hans Rickli, Keith A A Fox, Mark de Belder, Dragana Radovanovic, John Deanfield, Thomas F Lüscher

Sex-related differences in the management and outcomes of patients hospitalized with ST-elevation myocardial infarction: a comparison within four European myocardial infarction registries

Tora Hellgren¹, Mai Blöndal^{2,3}, Jarle Jortveit⁴, Tamas Ferenc^{5,6}, Jonas Faxén^{7,8}, Christian Lewinter⁷, Jaan Eha^{2,3}, Piret Lõiveke^{3,9}, Toomas Marandi^{3,9}, Tiia Ainla^{3,9}, Aet Saar⁹, Gudrun Veldre^{3,10}, Péter Andréka¹¹, Sigrun Halvorsen¹², András Jánosi¹¹, and Robert Edfors^{13,14,*}

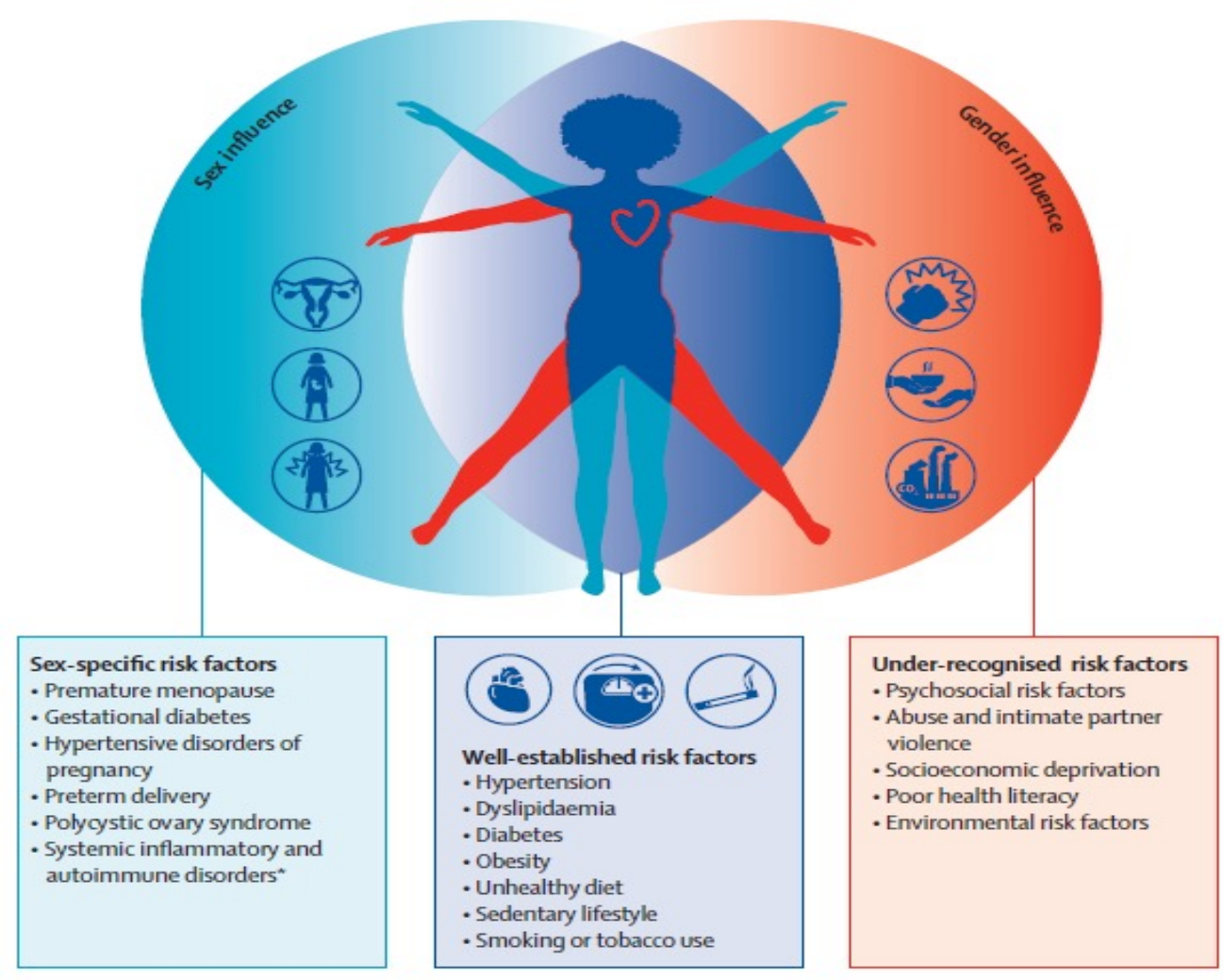
Women who experience a myocardial infarction at a young age have worse outcomes compared with men: the Mass General Brigham YOUNG-MI registry

Ersilia M. DeFilippis^{1,2†}, Bradley L. Collins^{1,2†}, Avininder Singh^{1,3}, David W. Biery⁴, Amber Fatima⁴, Arman Qamar¹, Adam N. Berman¹, Ankur Gupta^{1,5}, Mary Cawley¹, Melissa J. Wood⁶, Josh Klein⁵, Jon Hainer⁵, Martha Gulati⁷, Vivian R. Taqueti⁵, Marcelo F. Di Carli^{1,5}, Khurram Nasir⁸, Deepak L. Bhatt¹, and Ron Blankstein^{1,5*}

Spécificités chez la femme



Evaluation « intégrative » des facteurs de risque chez les femmes



Des patientes aux médecins

- Impact du sexe du médecin sur prise en charge?
- Spécificités des femmes médecins?

Une approche différente?

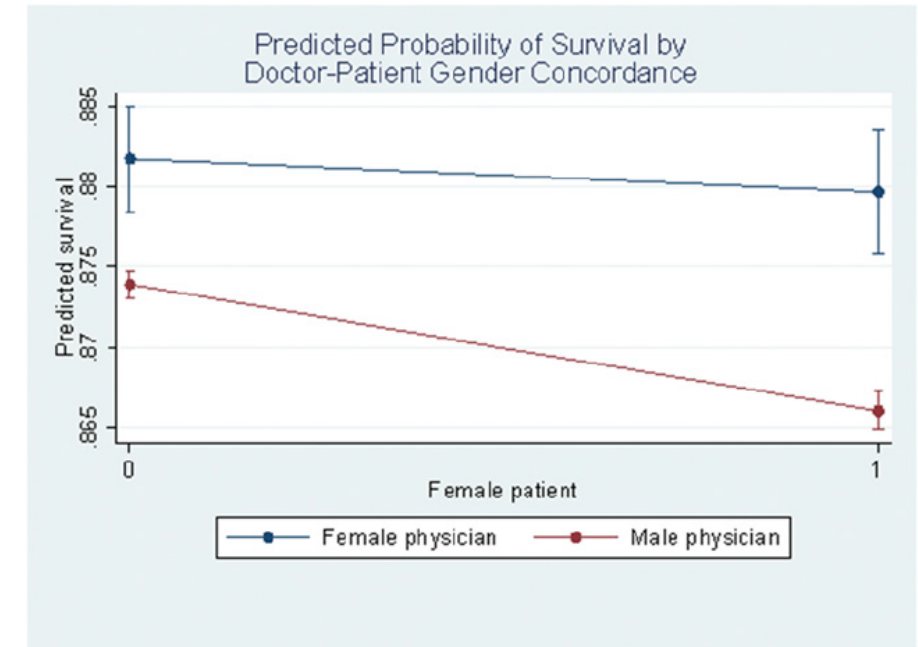
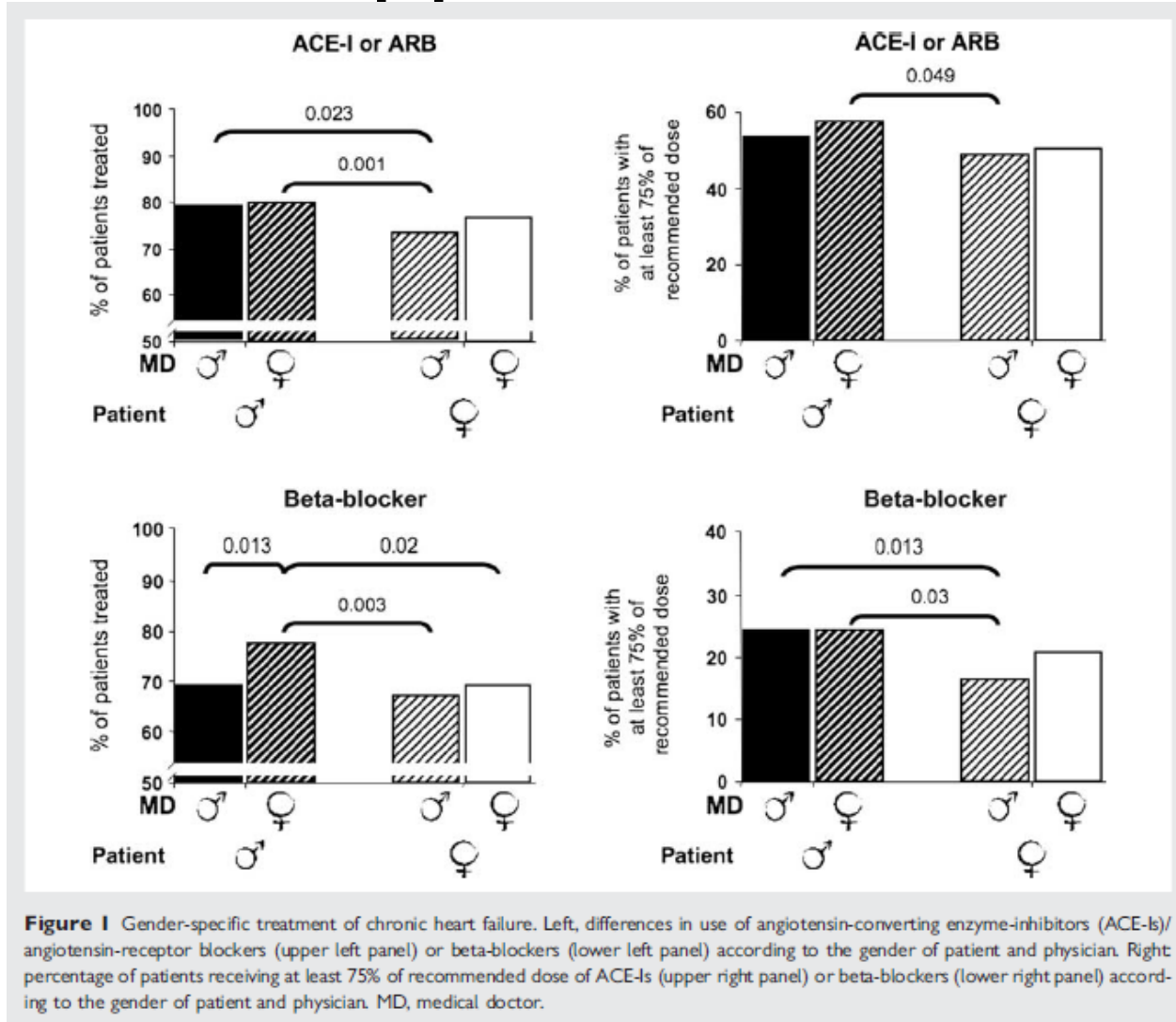


Fig. 1. Gender concordance and patient survival: results from Table 2, column 3, 90% confidence interval displayed. Estimates include controls and hospital quarter fixed effects. Covariates held at sample means. $n = 581,797$.

Greenwood BN PNAS. 2018

Une approche différente?

The DISCO study-Does Interventionalists' Sex impact Coronary Outcomes?

- **Objectives:** To examine the association of operator sex with appropriateness and outcomes of percutaneous coronary intervention (PCI).
- **Background:** Recent studies suggest that physician sex may impact outcomes for specific patient cohorts. There are no data evaluating the impact of operator sex on PCI outcomes.
- **Methods:** We studied the impact of operator sex on PCI outcome and appropriateness among all patients undergoing PCI between January 2010 and December 2017 at 48 non-federal hospitals in Michigan. We used logistic regression models to adjust for baseline risk among patients treated by male versus female operators in the primary analysis.
- **Results:** During this time, 18 female interventionalists and 385 male interventionalists had performed at least one PCI. Female interventionalists performed 6362 (2.7%) of 239,420 cases.
 - There were no differences in the odds of mortality (1.48% vs. 1.56%, adjusted OR [aOR] 1.138, 95% CI: 0.891-1.452), acute kidney injury (3.42% vs. 3.28%, aOR 1.027, 95% CI: 0.819-1.288), transfusion (2.59% vs. 2.85%, aOR 1.168, 95% CI: 0.980-1.390) or major bleeding (0.95% vs. 1.07%, aOR 1.083, 95% CI: 0.825-1.420) between patients treated by female versus male interventionalist.
 - While the absolute differences were small, PCIs performed by female interventional cardiologists were more frequently rated as appropriate (86.64% vs. 84.45%, p-value <0.0001). Female interventional cardiologists more frequently prescribed guideline-directed medical therapy.
- **Conclusions:** We found no significant differences in risk-adjusted in-hospital outcomes between PCIs performed by female versus male interventional cardiologists in Michigan. Female interventional cardiologists more frequently performed PCI rated as appropriate and had a higher likelihood of prescribing guideline-directed medical therapy.

WAMIF

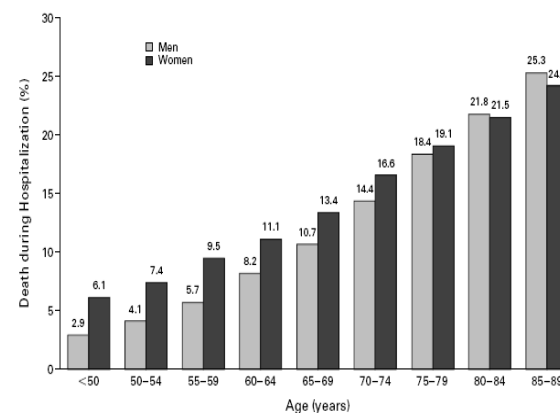


Prospective study in young
Women presenting
Acute
Myocardial
infarction in
France: clinical, morphological and biological descriptive analysis

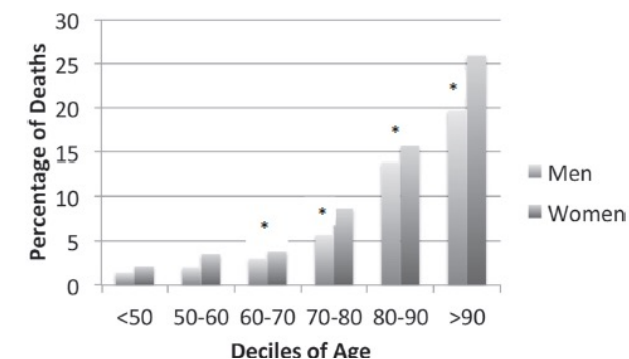


Characteristics of young women presenting with acute myocardial infarction: the prospective, multicentre, observational WAMIF study

- **Methods** Prospective, observational study including all women admitted for **myocardial infarction under the age of 50 years** at **30 centres in France** from May 2017 to June 2019
- **Steering committee: Femmes : 9/12; Investigateurs : femmes :14/30**
- 14.6% had spontaneous coronary artery dissection
- **MACE intra-hospitalier: 11 chez 9 patientes : 0 deces, 5 recidives IDM (SCAD), 3 AVC, 3 saignements , 0 ST**
- **MACE 1an: 0 deces CV, 2 deces,**
- **VIRGO: 0,1% décès in-hospital**
- **New Heaven: 2.8%**



Vaccarino et al, NEJM 1999



Manzo-Silberman et al Int J Cardiol 2018

Inclusion dans études

RESEARCH LETTER

Association of Women Authors With Women Enrollment in Clinical Trials of Atrial Fibrillation

Safi U. Khan , MD, MS; Charumathi Raghu Subramanian, MD; Muhammad Zia Khan , MD, MS; Ahmad N. Lone, MD; Swapna Talluri , MD; Janet K. Han , MD; Nino Isakadze, MD; Annabelle Santos Volgman , MD; Erin D. Michos , MD, MHS

The proportion of women authors per trial was independently significantly associated with greater women participant enrollment ($\beta=0.19$, $P=0.02$)

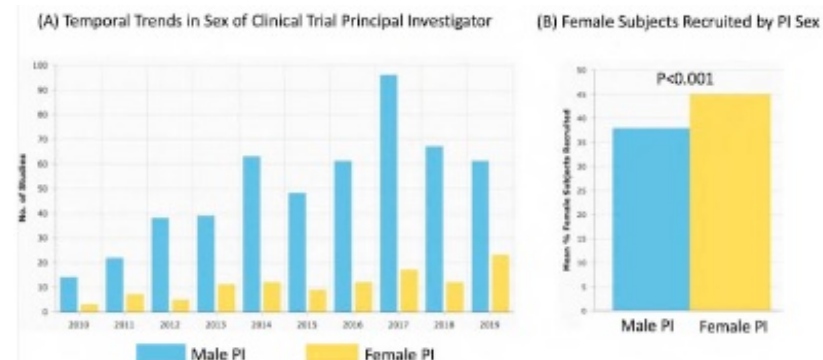


1470
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Prevention and Health Promotion

SEX OF PRINCIPAL INVESTIGATORS AND PATIENTS IN CARDIOVASCULAR CLINICAL TRIALS

Moderated Poster Contributions
Prevention and Health Promotion Moderated Poster Theater_Hall C
Monday, April 4, 2022, 10:30 a.m.-10:40 a.m.



Importance de la considération du sexe en cardiologie

- Exposition facteur de risque ≠
→ Prévention et dépistage adaptés
- Spécificité présentation et formes physiopathologiques
→ Sensibilité diagnostic adaptée + traitement adapté
- Importance représentation dans études fondamentales/cliniques dédiée
→ Détermination mécanisme physiologiques
- Représentativité investigateur/soignant/auteur
→ Optimisation pronostic