Gendersensibilität in der Notfallmedizin

Stefan Bushuven

06.05.2026
Notfallmedizinisches Trainingszentrum in Singen (NOTIS e.V.)

Information zum Referenten

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Facharzt für Anästhesiologie EDIC DESA / Krankenhaushygieniker GLKN und BZH

Zusatzbezeichnung Medizinhygiene, Ärztliches Qualitätsmanagement, Notfall-, Intensiv- und Palliativmedizin, Trainer für Ethik-Beratung im Gesundheitswesen, FEES-Ausbilder DGN Ltd. Notarzt Landkreis Konstanz, ÄVRD Johanniter Unfallhilfe Landkreis Konstanz

Studium:

Humanmedizin, Münster

Medical Education, Heidelberg (MME)

Ethics in Medicine, Mainz (M.A.)

Health Business Administration, Nürnberg-Erlangen (MHBA)

Biometrie & Biostatistik, Heidelberg (ongoing)

COI:

NOTIS e.V. kooperierte 2025-2026 mit Fa. Bode / Hartmann AG im Rahmen wissenschaftlicher Fragestellungen (registrierte Studie)

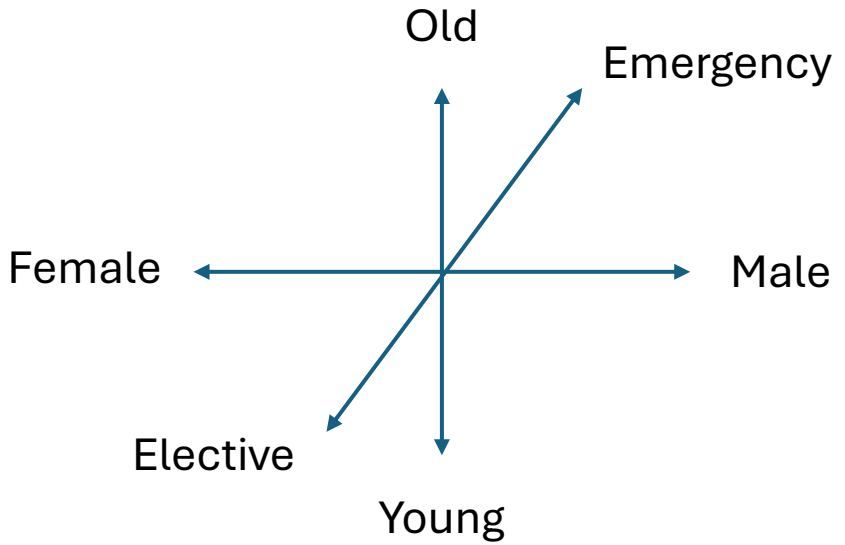
Einleitung

Notfalleinsatz, 63 Jahre, weiblich.
Akutes Coronasyndrom
Heftiger Brustschmerz mit Ausstrahlung in den linkne Kiefer und den linken Arm
Dringender V.a. STEMI

Vorerkrankungen
- Arterielle Hypertonie
- V.a. Mamma Ca.
- Transition Male → Female vor ca 25 Jahren, dauerhafte Hormontherapie

Vorerkrankung?

Kategorisierung oder Kontinuität?



Heuristische Aspekte

Kategorisierung für „interne Modellierung“ und Decision Making

Heuristic Error / Cognitive Bias

→ Halo Effekte
→ Negative Halo Effekte
→ Over- und Underconfidence
→ …

Notfallmedizin

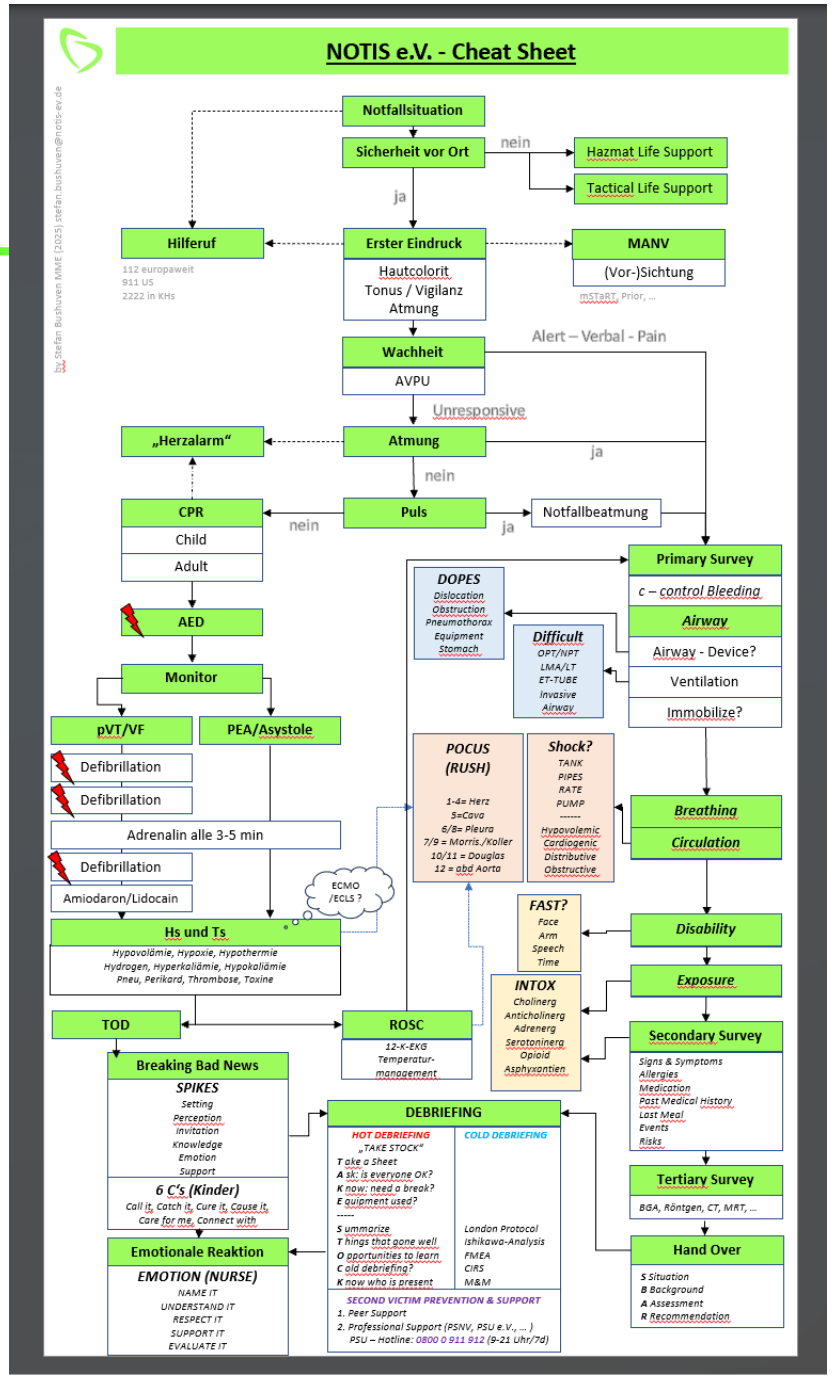
Außerklinisch

Innerklinisch

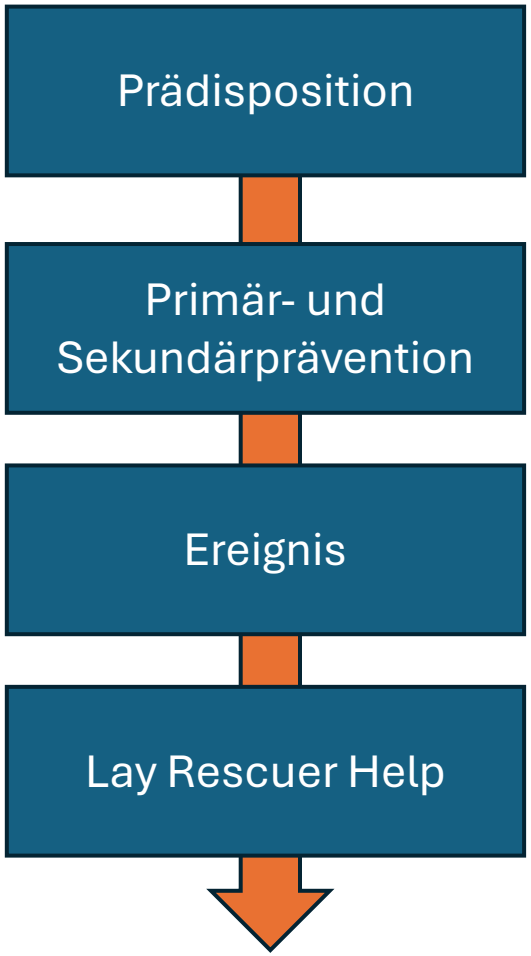
Krankentransport
Notfall in der Haus-/Fach-/Zahnarzt Praxis
Regelrettung
Mass Casualty Incidents / MANV
Mass Gathering Events

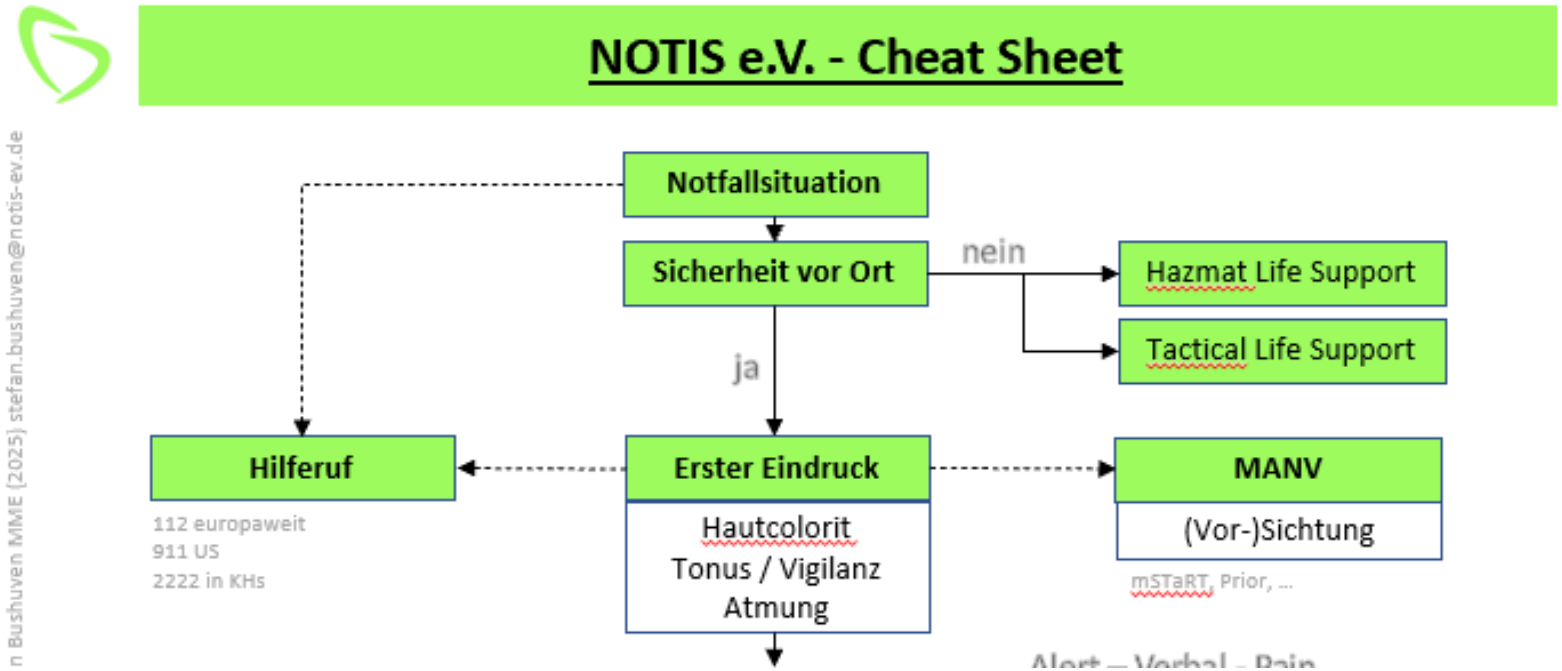
Zentrale Notaufnahmen /Rettungsstellen
Notfälle im Krankenhaus
Medical Intervention Teams (MITs)

Notfalldefinition

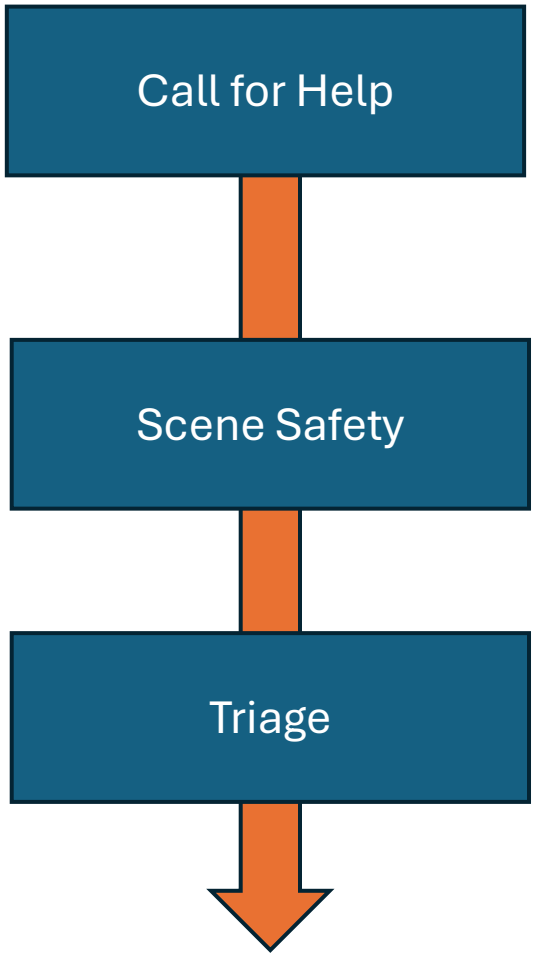


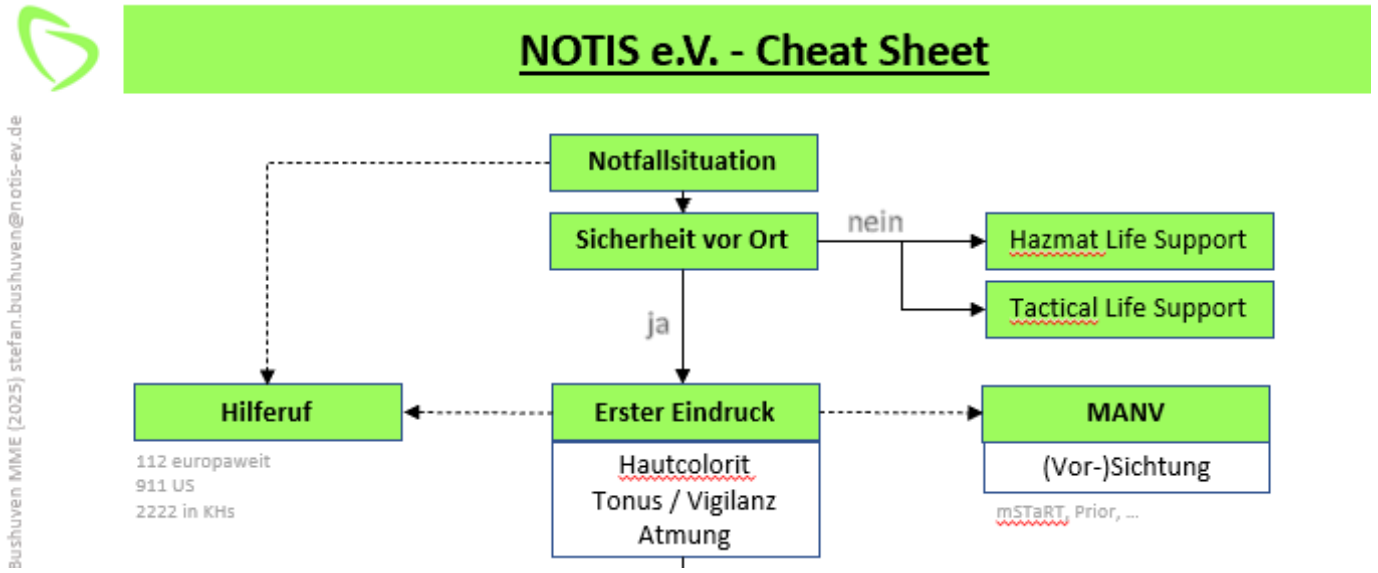
Eine Prozedurale Darstellung



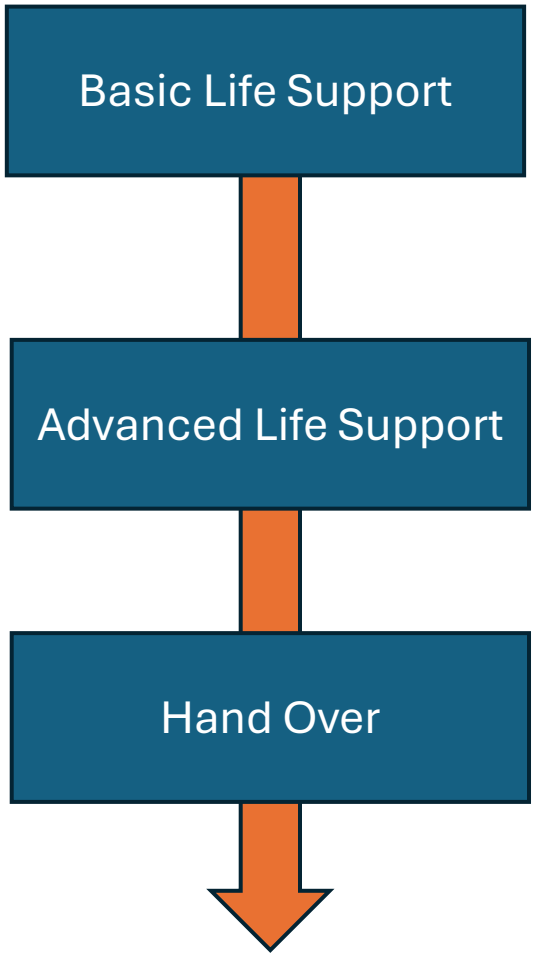


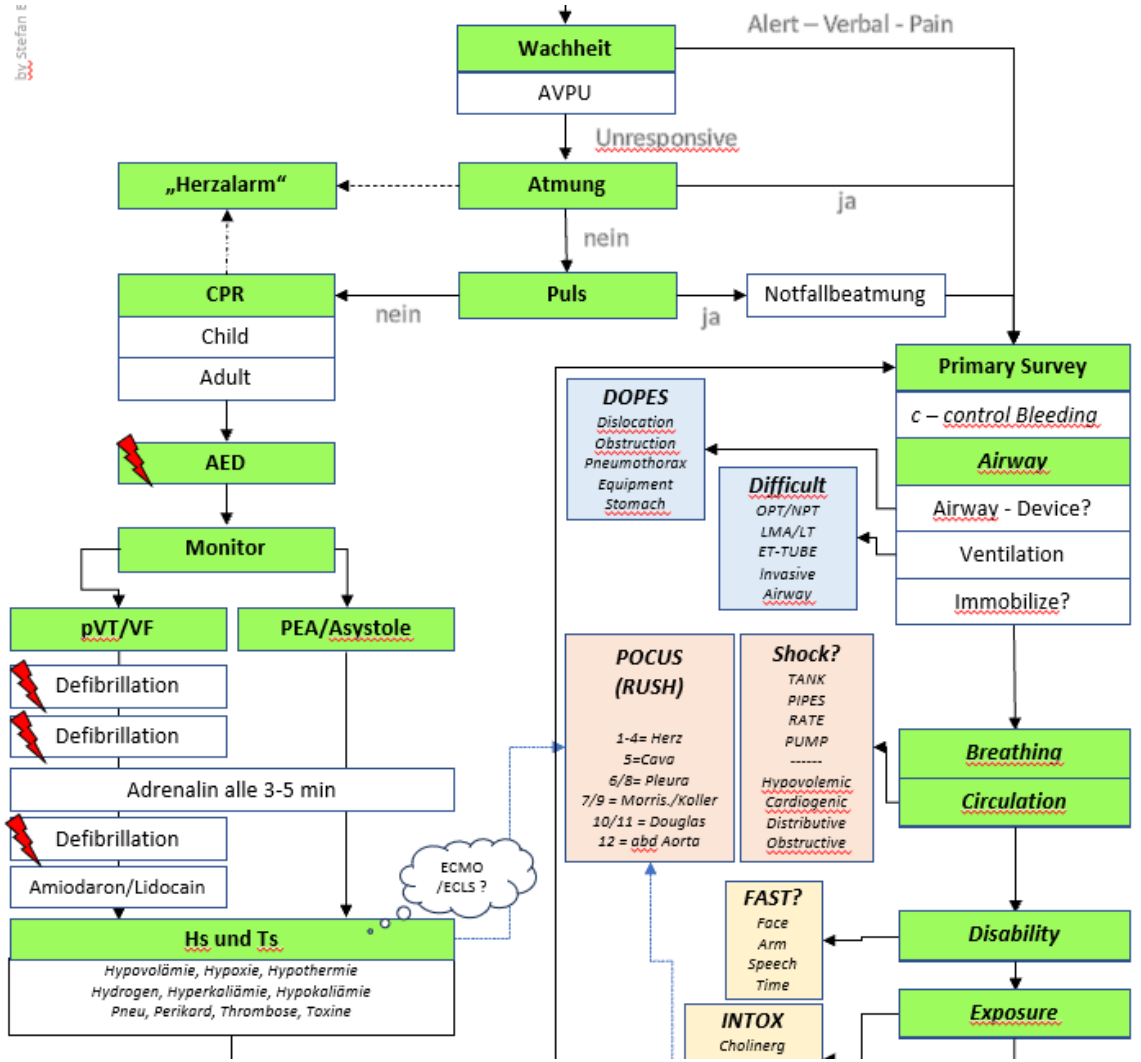
Eine Prozedurale Darstellung





Eine Prozedurale Darstellung





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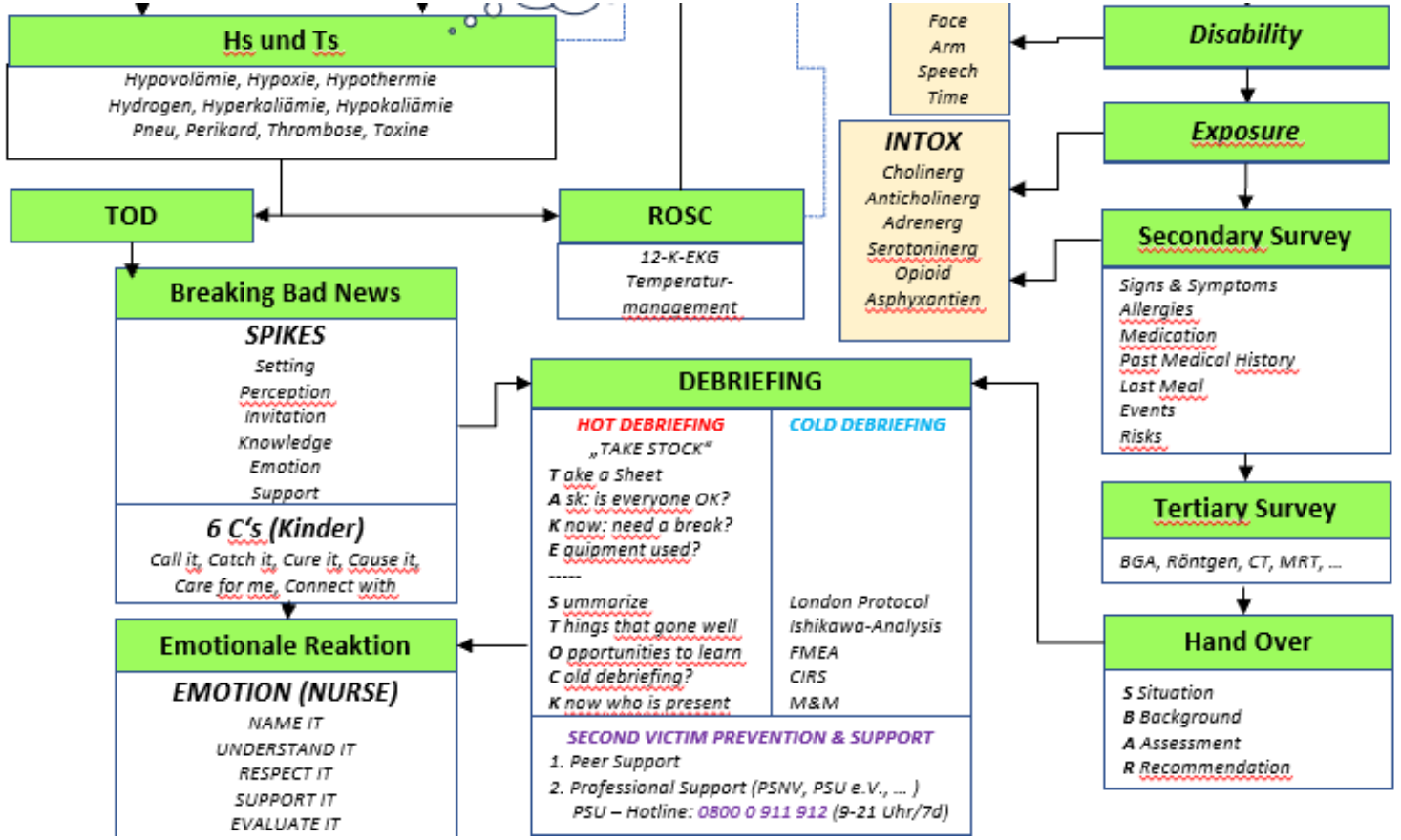


Prädisposition

J Safety Res. 2025 Sep:94:1-23. doi: 10.1016/j.jsr.2025.06.007. Epub 2025 Jun 11.

Gender disparities in the severity of car accidents: Empirical evidence for Spain

Javier Moreno González [1], José M Labeaga [2]

Affiliations + expand

PMID: 40930626 DOI: 10.1016/j.jsr.2025.06.007

Free article

Probit-Ordinale Modellierung
Sehr großer Datensatz
a.e. explorativ
Keine Multiplizitätsanpassung

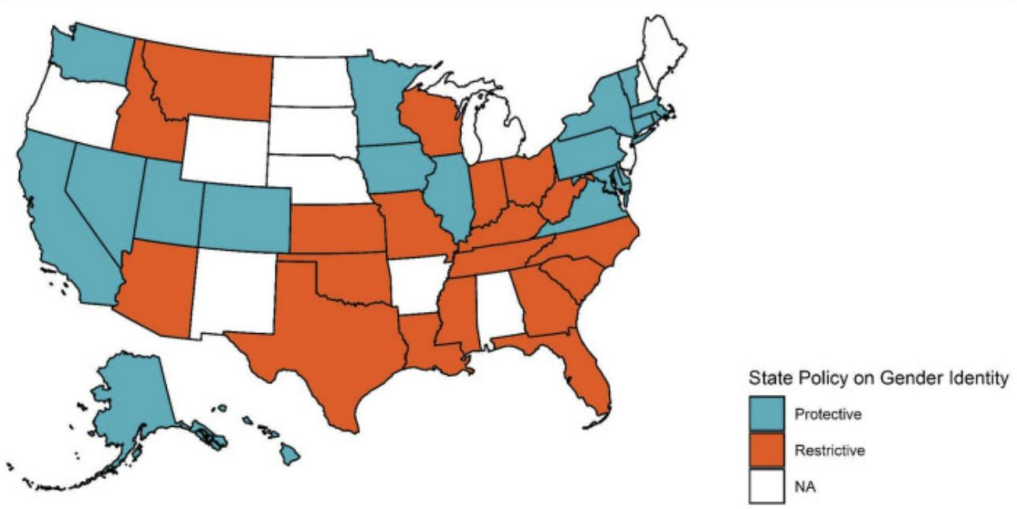
The pattern is observed to be consistent among all the makes considered. The results suggest that Toyota is the make that shows the highest probability of remaining unharmed for men, while Volvo is the one presenting the highest probability of no injuries for women. Those makes are closely followed by Mercedes and Kia regarding unharmed probabilities. On the other hand, Volvo is the make that exhibits the smallest differences in terms of probabilities of mortality between men and women.[11]

Primär- und Sekundärprävention

Prev Med. 2023 Jun:171:107485. doi: 10.1016/j.ypmed.2023.107485. Epub 2023 Mar 31.

Differences in influenza vaccination by gender identity and state-level gender equity policies: Behavioral Risk Factor Surveillance System, 2015-2019

Sarah N Cox [1], Mark A Fajans [2], Collrane J Frivold [3], Alyson J Littman [4], Jennifer E Balkus [5]



Log-binomiale Regression
Robuste Standardfehler
State ist effect modfier

Highlights

- This is the largest study of influenza vaccine uptake by gender identity.
- There is a disparity in influenza vaccine uptake by gender identity in the U.S.
- Influenza vaccine uptake was lowest among transgender women (65.4% unvaccinated).
- Protective versus restrictive gender equity policies did not impact vaccine uptake.
- Interventions for transgender and non-binary communities could improve vaccine equity.

Ereigniseintritt

Review > Scand J Trauma Resusc Emerg Med. 2026 Mar 24;34(1):84.
doi: 10.1186/s13049-026-01596-3.

Sex and gender bias in major trauma care: a scoping review

A Ghika-Nanchen [1], L Marzorati [1], A Merra [1], C Girardello [2], P Truong [1], P N Carron [1], T Nutbeam [3 4], C Clair [5], F X Ageron [6]

Affiliations + expand

PMID: 41877236 DOI: 10.1186/s13049-026-01596-3

From: Sex and gender bias in major trauma care: a scoping review

	Higher prevalence in men	Higher prevalence in women
Characteristics of injuries		
Mechanism of injury	- Assaults [16,17,18,19] - Penetrating injury [16, 18] - Motorcycle [16, 17]/motor vehicle accidents [18] - Vehicle accidents related to alcohol consumption [20] - Falls from higher heights [16]	- Self-inflicted injuries, suicide [9, 17, 21] - Blunt trauma [22, 23] - Passenger in a motor vehicle crash - Trapped in a motor vehicle accident [16, 24] - Falls from lower heights [12, 16, 18]
Severity of injury	No evidence of clinically significant difference in injury severity (ISS). Some studies showed a higher ISS in men [16, 24], others showed a higher ISS in women [17, 23], while others found similar scores [12, 22]	
Location of injury	Head [12, 24]/Chest [12, 24]/Abdomen [12]/Limbs [24]	Spinal cord [24,25,26]/Pelvis [24, 27,28,29]
Age	Younger [12, 16, 22,23,24]	Older [12, 16, 22,23,24, 30]

Lay Rescuer Help

› Circ Cardiovasc Qual Outcomes. 2024 Apr;17(4):e010249. doi: 10.1161/CIRCOUTCOMES.123.010249. Epub 2024 Mar 27.

Examining the Impact of Layperson Rescuer Gender on the Receipt of Bystander CPR for Women in Cardiac Arrest

Shelby K Shelton [1], John D Rice [2 3], Christopher E Knoepke [3 4 5], Daniel D Matlock [6 5], Edward P Havranek [7], Stacie L Daugherty [1], Sarah M Perman [3 8 9]

Affiliations + expand

PMID: 38533649 PMCID: PMC11245171 DOI: 10.1161/CIRCOUTCOMES.123.010249

N= 520
Colorado USA
Selection bias by convenience and funded research

Fragendesign nicht ganz optimal, Single MCQ

Preference proportions, Boot-strapping

Ranking of themes* when the rescuer was identified as male.

First Rank	Second Rank	Third Rank	Fourth Rank	Fifth Rank	BSP†
Touch	Sexual Assault/ Harassment	Hurt/ Injure	Misconception	Overdramatic	0.7982
Touch	Sexual Assault/ Harassment	Hurt/ Injure	Overdramatic	Misconception	0.1995
Sexual Assault/ Harassment	Touch	Hurt/ Injure	Misconception	Overdramatic	0.002
Sexual Assault/ Harassment	Touch	Hurt/ Injure	Overdramatic	Misconception	0.0003

Ranking of themes* when the rescuer was identified as female.

First Rank	Second Rank	Third Rank	Fourth Rank	Fifth Rank	BSP†
Hurt/ Injure	Touch	Overdramatic	Misconception	Sexual Assault/ Harassment	0.5915
Hurt/ Injure	Touch	Misconception	Overdramatic	Sexual Assault/ Harassment	0.4275
Hurt/ Injure	Overdramatic	Touch	Misconception	Sexual Assault/ Harassment	0.0234
Hurt/ Injure	Misconception	Touch	Overdramatic	Sexual Assault/ Harassment	0.0225
Hurt/ Injure	Misconception	Overdramatic	Touch	Sexual Assault/ Harassment	0.0036
Hurt/ Injure	Overdramatic	Misconception	Touch	Sexual Assault/ Harassment	0.0035

Call for Help

Psychosoc Interv. 2024 May 1;33(2):103-115. doi: 10.5093/pi2024a8. eCollection 2024 May.

The Spatio-Temporal Distribution of Suicide-related Emergency Calls in a European City: Age and Gender Patterns, and Neighborhood Influences

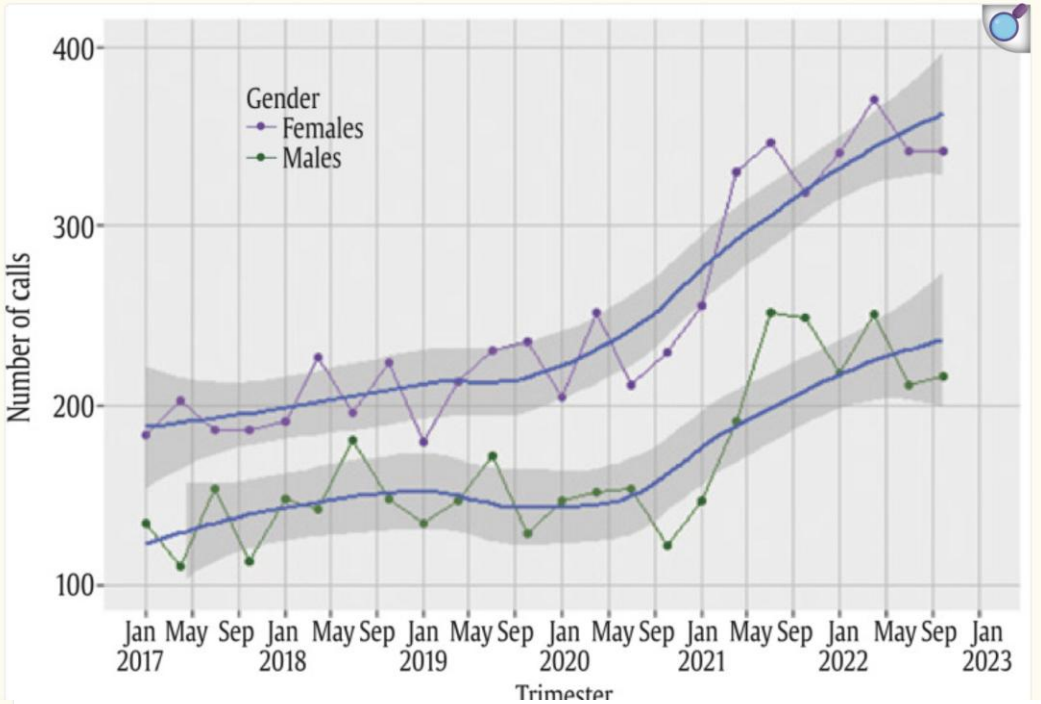
Miriam Marco [1], Antonio López-Quílez [2], Francisco Sánchez-Sáez [3], Pablo Escobar-Hernández [2], María Montagud-Andrés [1], Marisol Lila [1], Enrique Gracia [1]

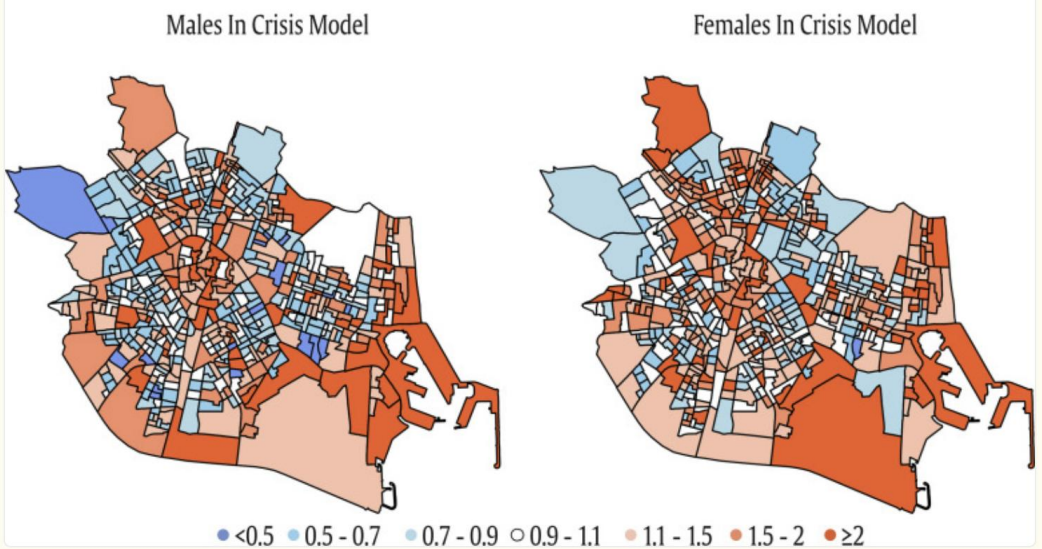
Valenzia, Spanien
6 Jahre, 10000 calls, davon 6000 Frauen
Misst keine vollendeten Suizide!

Autoregressives Bayes Modell

! COVID 19: Erheblicher Anstieg bei den 18-23 jährigen
! Saisonalität: Frühjahr und Sommer +++

Figure 2. Temporal Trends of Suicide-related Emergency Calls Based on the Gender of the Individual in Crisis by Trimester.





Scene Safety

J Safety Res. 2012 Apr;43(2):129-32. doi: 10.1016/j.jsr.2012.05.001. Epub 2012 May 18.

A study on rescuer drowning and multiple drowning incidents

Adnan Turgut [1], Tevfik Turgut

Affiliations + expand

PMID: 22709998 DOI: 10.1016/j.jsr.2012.05.001

Hauptrisikogruppe
Jungen < 18 Jahre, die Hilfe leisten

This study includes 88 cases in which 114 “rescuers” (*M*age=26.2years, age range: 9–75years) died from drowning during their attempts to rescue a PDV; 42.1% of the “rescuers” were children and 72.0% of “rescuers” were males (Table1).

Triage

Studie bereits genannt

Review > Scand J Trauma Resusc Emerg Med. 2026 Mar 24;34(1):84.
doi: 10.1186/s13049-026-01596-3.

Sex and gender bias in major trauma care: a scoping review

A Ghika-Nanchen [1], L Marzorati [1], A Merra [1], C Girardello [2], P Truong [1], P N Carron [1], T Nutbeam [3 4], C Clair [5], F X Ageron [6]

Affiliations + expand

PMID: 41877236 PMCID: PMC13134334 DOI: 10.1186/s13049-026-01596-3

Table 1 Main results by key topics

	Higher prevalence in men	Higher prevalence in women
Characteristics of injuries		
Mechanism of injury	- Assaults [16–19] - Penetrating injury [16, 18] - Motorcycle [16, 17]/motor vehicle accidents [18] - Vehicle accidents related to alcohol consumption [20] - Falls from higher heights [16]	- Self-inflicted injuries, suicide [9, 17, 21] - Blunt trauma [22, 23] - Passenger in a motor vehicle crash - Trapped in a motor vehicle accident [16, 24] - Falls from lower heights [12, 16, 18]
Severity of injury	No evidence of clinically significant difference in injury severity (ISS). Some studies showed a higher ISS in men [16, 24], others showed a higher ISS in women [17, 23], while others found similar scores [12, 22]	
Location of injury	Head [12, 24]/Chest [12, 24]/Abdomen [12]/Limbs [24]	Spinal cord [24–26]/Pelvis [24, 27–29]
Age	Younger [12, 16, 22–24]	Older [12, 16, 22–24, 30]
Coagulation disorders	- Greater hypercoagulability in thromboelastography in women, with no difference in standard laboratory assays [19, 23] - Lower fibrinogen levels at admission in women [31] - Greater hyperfibrinolysis in older women [32]	
Orientation and Triage		
Trauma centre admission*	Greater probability of transport [9, 12, 33, 34] and direct trauma centre admission [9, 35–37] in men	
ICU admission	Greater probability of ICU admission in men [38]	
Triage	Higher undertriage rates among women with moderate to severe injuries, except for penetrating trauma [12]	

Basic Life Support

› Nurse Educ Pract. 2025 Oct:88:104533. doi: 10.1016/j.nepr.2025.104533. Epub 2025 Aug 31.

Female anatomical manikins in basic life support training: A mixed methods study

Laura Herrero-Izquierdo [1], Ana Rosa Alconero-Camarero [2], Rebeca Abajas-Bustillo [3], Carmen Sarabia-Cobo [4], Carmen Ortego-Maté [4]

Affiliations + expand

PMID: 40912024 DOI: 10.1016/j.nepr.2025.104533

Free article

Outcomes

The use of torsos with breasts led to poorer technical performance (initiation time: 14 vs. 9 s; hand placement: 57.5 % vs. 97.5 %; correct use of the automated external defibrillator (AED): 31.3 % vs. 98.8 %; electrode placement: 55 vs. 45.4 s; $p < 0.001$) and greater physiological activation (heart rate: 90 vs. 76 bpm; perceived stress: 5.0 vs. 3.0; $p < 0.001$). Retraining with the female torso improved AED use (56.3 % vs. 31.3 %) and compression time (11 vs. 14 s); however, differences with the male torso persisted. Technical and emotional barriers—such as hesitation and uncertainty—aligned with perceptions in focus groups, reinforcing the emotional impact in qualitative phase.

Basic Life Support – Diversity

Advanced Life Support (A)

› Intensive Crit Care Nurs. 2014 Dec;30(6):318-24. doi: 10.1016/j.iccn.2014.07.003. Epub 2014 Oct 3.

Sore throat in women after intubation with 6.5 or 7.0 mm endotracheal tube: a quantitative study

Linda Gustavsson [1], Irene Vikman [2], Cecilia Nyström [3], Åsa Engström [4]

Affiliations + expand

PMID: 25280886 DOI: 10.1016/j.iccn.2014.07.003

Comparative Study

› BMC Anesthesiol. 2014 Jul 19:14:56. doi: 10.1186/1471-2253-14-56. eCollection 2014.

Gender differences in sore throat and hoarseness following endotracheal tube or laryngeal mask airway: a prospective study

Maria Jaensson [1], Anil Gupta [2], Ulrica Nilsson [3]

Affiliations + expand

PMID: 25061426 PMCID: PMC4110067 DOI: 10.1186/1471-2253-14-56

Methods: A total of 112 men and 185 women were included during a four month period. All patients were evaluated postoperatively and after 24 hours about the occurrence of sore throat, its location and hoarseness. If the patients had any symptom, they were followed-up at 48, 72 and 96 hours until the symptoms resolved.

Results: There was no significant gender difference in postoperative sore throat (POST) and postoperative hoarseness (PH) when analyzing both airway devices together. The incidence of sore

Advanced Life Support (B)

Review > Annu Rev Physiol. 2025 Feb;87(1):471-490.
doi: 10.1146/annurev-physiol-042022-014322. Epub 2025 Feb 3.

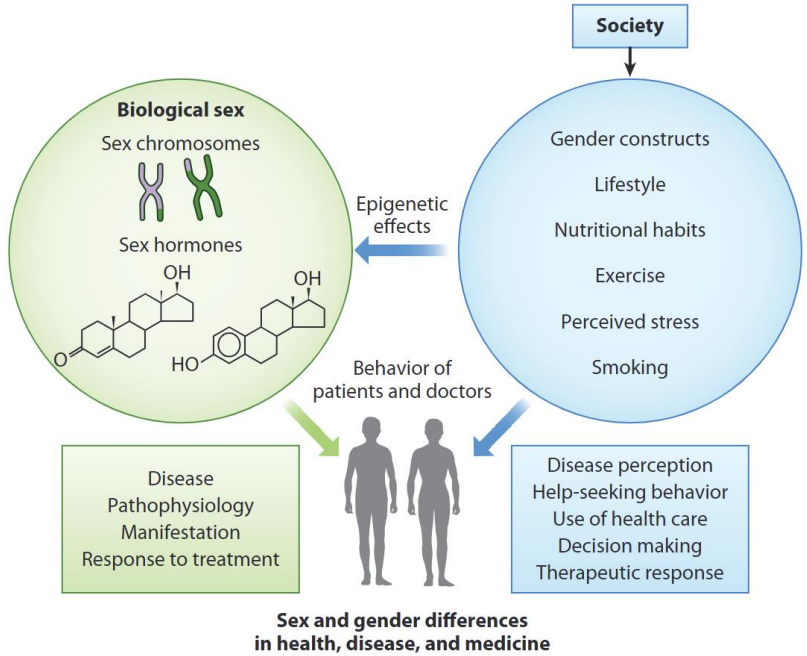
Sex, Gender, and COPD

Dawn L DeMeo [1]

Affiliations + expand

PMID: 39586033 DOI: 10.1146/annurev-physiol-042022-014322

Free article



Sex and gender differences in health, disease, and medicine

Abstract

Sex and gender have emerged as critical considerations r disease (COPD). Sex differences in lung development anc environmental exposures influence COPD susceptibility, p mortality. Gender has been poorly measured in the contex impact biology. The hormonal milieu is critical to study across the life course. Differences in immunity and inflammation likely impact sex- and gender-related features of COPD. Emerging evidence from multiple types of omics data is revealing new genes and pathways to consider as relevant to sex- and gender-divergent features of COPD. Much research to date has focused on autosomes, but the growing awareness of a role for allosomes is highlighting knowledge gaps. Reproductive aging impacts lung function and requires more investigation. Network medicine holds promise as an approach to sex and gender omics to uncover drivers of COPD in men and women.

Differences between men and women with COPD exist for COPD susceptibility, severity, comorbidities, symptoms, exacerbation risk, hospitalization, and death. These features have been extensively reviewed (14–20). Women with COPD tend to have more severe symptoms across all age groups (21), and given the aging of the global population, the burden of COPD and COPD symptoms is rising. To ensure best care of all men and women with COPD, we need to be sure to address disparities in gender minorities (22) through inclusive research. The best care of all peo-

Advanced Life Support (C)

Clinical Trial > Am J Cardiol. 1996 Jul 1;78(1):9-14. doi: 10.1016/s0002-9149(96)00218-4.

Comparison of presentation, treatment, and outcome of acute myocardial infarction in men versus women (the Myocardial Infarction Triage and Intervention Registry)

P J Kudenchuk [1], C Maynard, J S Martin, M Wirkus, W D Weaver

Affiliations + expand

PMID: 8712126 DOI: 10.1016/s0002-9149(96)00218-4

Abstract

This study compared the presentation (symptoms and signs), treatment, and outcome of 1,097 consecutive patients (851 men and 246 women) from the Myocardial Infarction Triage and Intervention (MITI) Project Registry with confirmed acute myocardial infarction (AMI), all of whom were initially evaluated in the prehospital setting, met clinical criteria for possible thrombolysis, and were followed throughout their hospital course. Women were older than men and had a higher prevalence of known cardiovascular risk factors, including systemic hypertension and congestive heart failure. The presentation of AMI with respect to symptoms, delay, and hemodynamic and electrocardiographic findings was for the most part indistinguishable between mean and women. Women appeared "undertreated" early in the course of AMI and were half as likely as men to undergo acute catheterization, angioplasty, thrombolysis, or coronary bypass surgery (odds ratio 0.5 [0.3 to 0.7]). The risk for hospital mortality in women was almost twice that for men (odds ratio 1.95 [1.01 to

electrocardiographic findings was for the most part indistinguishable between mean and women. Women appeared "undertreated" early in the course of AMI and were half as likely as men to undergo acute catheterization, angioplasty, thrombolysis, or coronary bypass surgery (odds ratio 0.5 [0.3 to 0.7]). The risk for hospital mortality in women was almost twice that for men (odds ratio 1.95 [1.01 to 3.8]). Hospital mortality after AMI was also independently predicted by older age, early evidence of hemodynamic instability, and an intraventricular conduction abnormality on the initial electrocardiogram. Although similar in its presentation, AMI in women is not as aggressively treated,

Advanced Life Support (D)

› Prehosp Disaster Med. 2022 Oct;37(5):638-644. doi: 10.1017/S1049023X2200111X.
Epub 2022 Aug 4.

The Influence of Gender Bias: Is Pain Management in the Field Affected by Health Care Provider's Gender?

Adi Karas [1], Lidar Fridrich [2], Irina Radomislensky [1 3], Guy Avital [1 4], Sami Gendler [1], Jacob Chen [5], Shaul Gelikas [1 6], Avi Benov [1 7]

Affiliations + expand

PMID: 35924723 DOI: 10.1017/S1049023X2200111X

Results: A total of 976 casualties were included, of whom 835 (85.6%) were male. Mean pain scores (SD) for the female only, male only, and both genders providers were 6.4 (SD = 2.9), 6.4 (SD = 3.0), and 6.9 (SD = 2.8), respectively (P = .257). There was no significant difference between females, males, or both female and male groups in analgesic treatment, overall and per specific agent. This remained true also in the multivariate model. Delta-pain difference between groups was also not significant. Less than two-thirds of casualties in this study were treated for pain among all study groups.

Advanced Life Support (E)

THE UPSTATE BIAS CHECKLIST

If you are using the Bias Checklist for the first time, have not had prior training, or want additional guidance before getting started, please click here to watch the "Getting Started with the Checklist" video or here to access the FAQ on the Bias Checklist Collaborative website.

This checklist is intended to promote reflection regarding how race, gender, and other indicators (including structural and social determinants of health, such as poverty) are represented in health professions education.

The Bias Checklist was designed to be used to evaluate a particular piece of health professions education content, such as a lecture, standardized patient encounter, small group session, or written examination.

"Content" may include slides, lecture notes, handouts, assigned readings, examination questions, problem-based learning cases, or anything said by the presenter during the learning encounter.

EDITORIAL ▸ BMJ Simul Technol Enhanc Learn. 2021 Mar 5;7(4):183–184. doi: 10.1136/bmjstel-2021-000871

Deadly bias: a call for gender diversity in cardiac life support simulation training

Larissa Spagnol Silverman [1], Rachel Fabi [2,✉]

▸ Author information ▸ Article notes ▸ Copyright and License information

PMCID: PMC8936995 PMID: 35516830

Hand Over

Nichts gefunden

End Of Life

Letter

End-of-life experiences in advanced cancer: gender differences

Yutaka Hatano [1], Masanori Mori [2], Hiroaki Izumi [3], Koji Amano [4, 5], Tetsuya Ito [6], Junko Nozato [7], Keisuke Kaneishi [8], Tomohiro Kawamura [9] and Tatsuya Morita [10] EASED Investigators

Correspondence to Dr Yutaka Hatano, Department of Palliative Care, Medical Corporation Kyowakai, Kawanishi, Hyogo 6660033, Japan; yutakahatano1@gmail.com

Debriefing (Structural)

Nichts gefunden

Debriefing (Emotional)

Nichts gefunden

Resilience (Second Victims)

Int J Environ Res Public Health. 2021 Oct 10;18(20):10594. doi: 10.3390/ijerph182010594.

Prevalence of Second Victims, Risk Factors, and Support Strategies among German Nurses (SeViD-II Survey)

Reinhard Strametz [1], Johannes C Fendel [2], Peter Koch [3], Hannah Roesner [1], Max Zilezinski [4 5], Stefan Bushuven [6 7], Matthias Raspe [8 9]

Affiliations + expand

PMID: 34682342 PMCID: PMC8535996 DOI: 10.3390/ijerph182010594

Breaking Bad News

Nichts gefunden

Resilience (Moral Injury)

Nichts gefunden

Conclusio

Ist es signifikant?

Ist es relevant?

There is much work to do!

Heuristische Aspekte

Kategorisierung für „interne Modellierung“ und Decision Making

Heuristic Error / Cognitive Bias

→ Halo Effekte
→ Negative Halo Effekte
→ Over- und Underconfidence
→ …

Conclusio

Ist es wirklich nur Gender Bias?
oder Diversity Bias?

- Gender
- Age
- Nationality
- Religion
- Ableness

Transgender?