- Conflitti di Interesse:

- Roche Diagnostic
- Eli Lilly
- Sanofi Aventis

XX CONGRESSO NAZIONALE 2015
Centro Congressi Magazzini del Cotone Genova
13|16 MAGGIO 2015
L'Evoluzione della Diabetologia alla luce del Piano Nazionale Diabete

Dalle differenze di genere alle pari opportunità

Differenze di genere nel Diabete di Tipo 1 e diabete di Tipo 2 negli Annali AMD

Valeria Manicardi
Coordinatore Gruppo Donna AMD
Direttore UIMD
Ospedale di Montecchio
AUSL di REGGIO E.

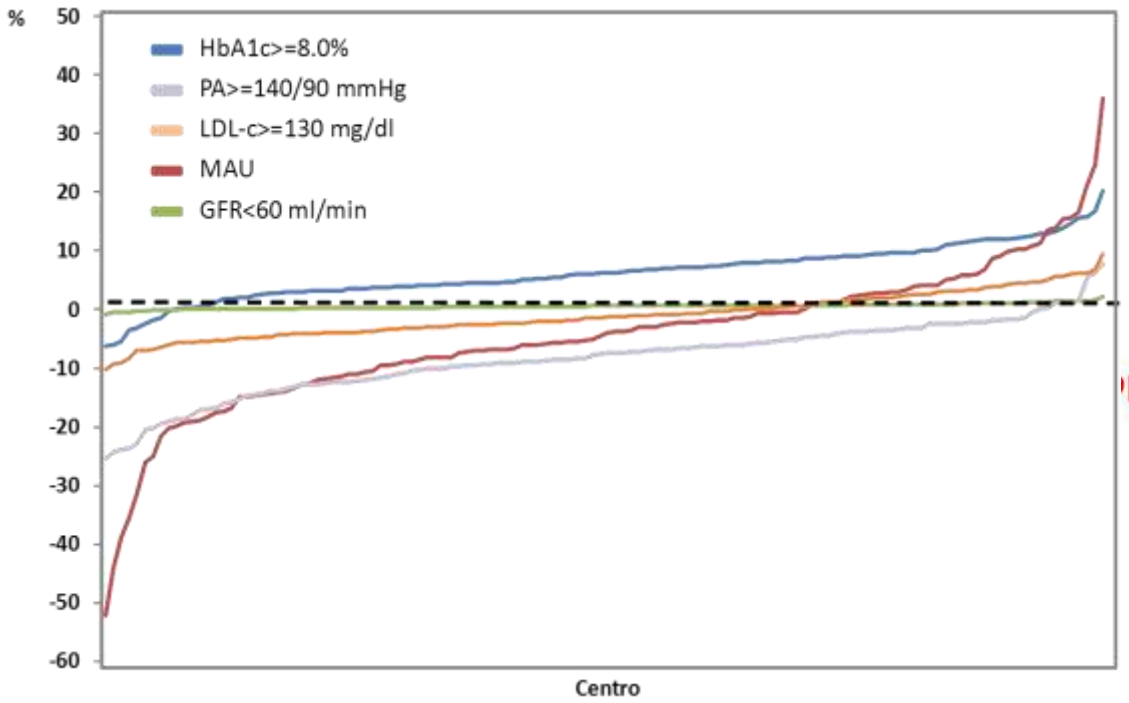
Annali di Genere in Diabetologia
Dal 2010 …… al 2015 a Reggio E

- Esistono differenze legate al genere **nell' accesso alle cure ?**
- Esistono differenze legate al genere nella Qualità della Cura erogata ?
- Esistono differenze legate al genere nella appropriatezza ed intensità di cura ?
- Esistono differenze legate al genere nel profilo di rischio CV ?

WHO : Women are not small men

Annali AMD

- **Le differenze di genere sono giocate tra differenze di natura fisiopatologica e differenze di natura assistenziale.**
- **Cosa ci dicono gli Annali AMD sulle differenze di genere nel diabet**

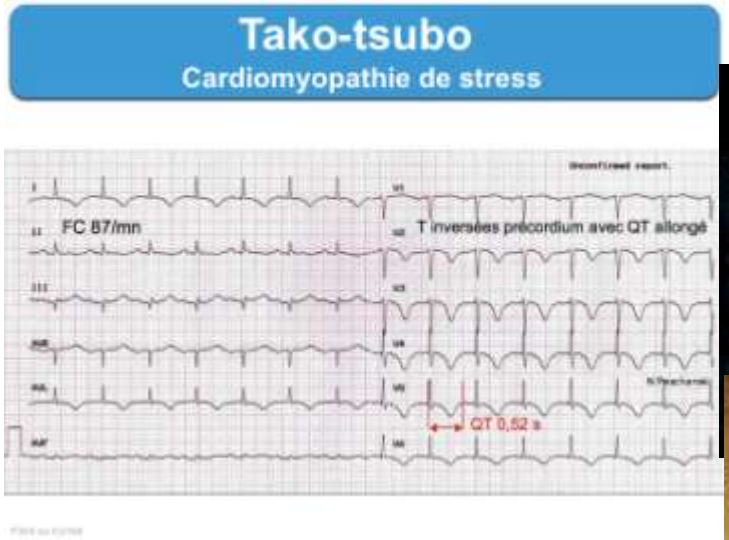


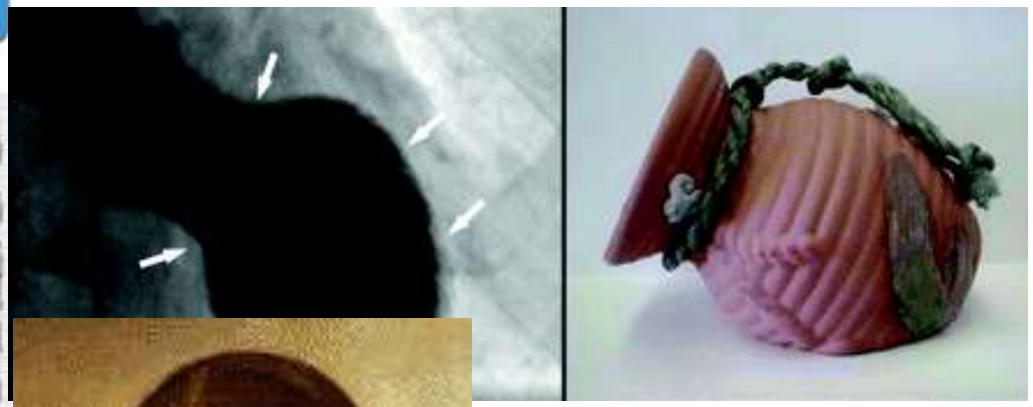
patologiche

La Variabilità tra i centri ci informa sulle differenze nella Qualità della cura erogata

Il Cuore delle Donne
Sindrome di Takotsubo

La S di Takotsubo : Morire di crepacuore .
Perché solo nelle donne ?





Le differenze di genere nelle espressioni della Cardiopatia ischemica sono oggetto di studio da molto tempo.

Pari Opportunità

Pari Opportunità .... di rischio :

Le donne Diabetiche sono colpite da Infarto tanto come gli uomini:

- hanno perso la protezione ormonale dall'infarto in età fertile

The Framingham study: historical insight on the impact of cardiovascular risk factors in men versus women.

-Metanalisi di 37 studi prospettici di coorte - J Gend Specific Med 2002; 5: 27

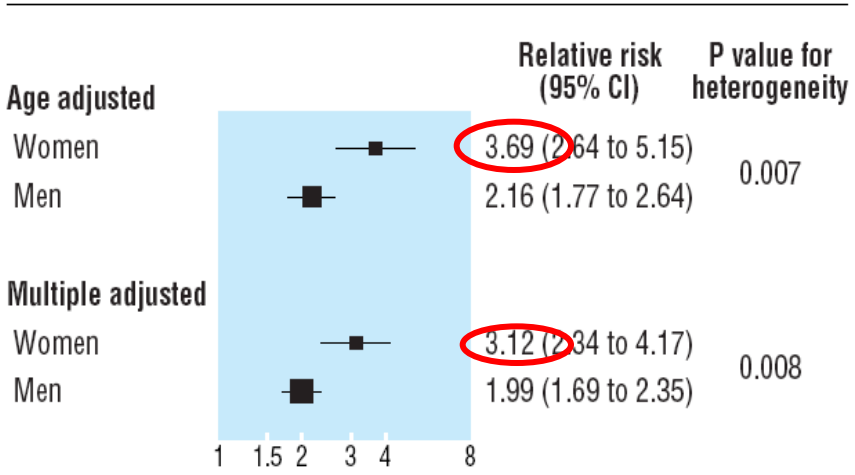
Cite this article as: BMJ, doi:10.1136/bmj.38678.389583.7C (published 21 December 2006)

Research

Excess risk of fatal coronary heart disease associated with diabetes in men and women: meta-analysis of 37 prospective cohort studies

Rachel Huxley, Federica Barzi, Mark Woodward

Huxley R et al., BMJ 2006



International Journal of Endocrinology *2014*

SEX DIFFERENCES IN CARDIOVASCULAR MORTALITY IN DIABETICS AND NON-DIABETICS: A POPULATION-BASED STUDY (ITALY)

Diabetics had an excess of mortality, compared with non–diabetics (all cause: IRR=1.68 95%CI 1.60-1.78; CVD: IRR=1.61; 95%CI 1.47-1.76; AMI: IRR=1.59; 95%CI 1.27-1.99; urinary system: IRR=1.71; 95%CI 1.22-2.38). The impact of diabetes is greater in females than in males for all causes (p=0.0321), in particular for IMA

Paola Ballotari[1], MSc, Sofia Chiatamone Ranieri[2*], MD, PhD, , Ferdinando Luberto[1], MD, Stefania Caroli[1], MSc, Marina Greci[3], MD, Paolo Giorgi Rossi[1], PhD, Valeria Manicardi[4], MD, .

Le Monografie di genere

Differenze di Genere

Nel DT2

Nel DT1

415.320 DT2 seguiti da 251 servizi in Italia nel 2009.

28.802 DT1 seguiti da 320 servizi di diabetologia in Italia nel 2011

2012

2014

(Diabetes Care 36:3162-3168,2013).

DT2

Diabetes Care 36:3162–3168, 2013

Sex Disparities in the Quality of Diabetes Care: Biological and Cultural Factors May Play a Different Role for Different Outcomes

MARIA CHIARA ROSSI, MSCPHARMCHEM[1]
MARIA ROSARIA CRISTOFARO, MD[2]
SANDRO GENTILE, MD[3]
GIUSEPPE LUCISANO, MSCSTAT[1]
VALERIA MANICARDI, MD[4]
MARIA FRANCA MULAS, MD[5]
ANGELA NAPOLI, MD[6]
ANTONIO NICOLUCCI, MD[1]
FABIO PELLEGRINI, MSCSTAT[1]
CONCETTA SURACI, MD[7]
CARLO GIORDA, MD[8]
ON BEHALF OF THE AMD ANNALS STUDY GROUP*

OBJECTIVE—To investigate the quality of type 2 diabetes care according to sex.

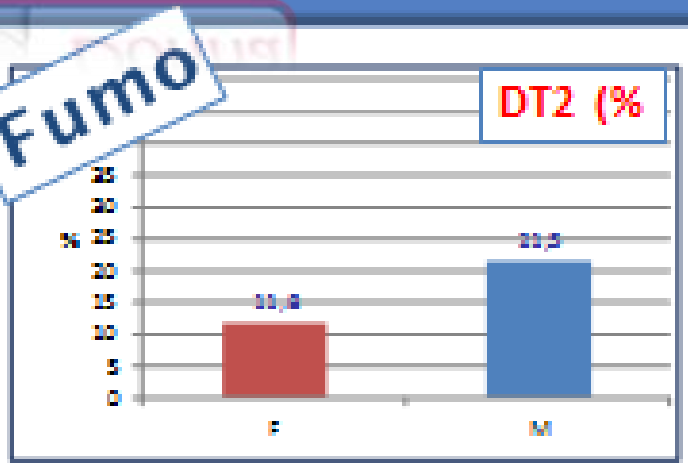
Electronic clinical records of 236 diabetes outpatient clinics

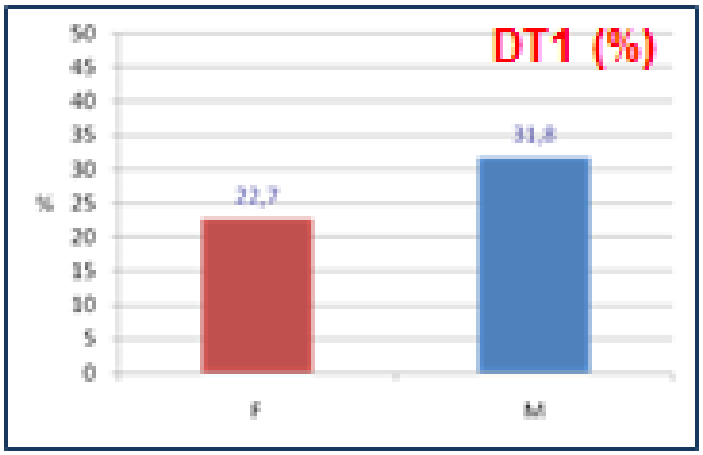
Extraction of data routinely collected during the year 2009

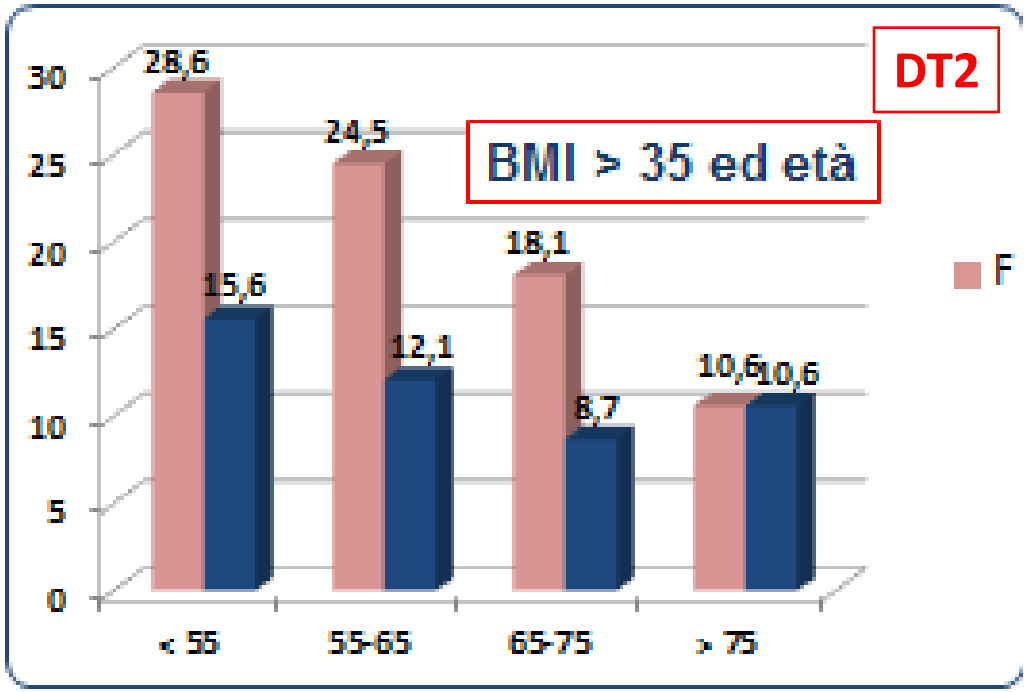
RESULTS—Overall, 415,294 patients from 236 diabetes outpatient centers were evaluated, of whom 188,125 (45.3%) were women and 227,169 (54.7%) were men. Women were 14% more likely than men to have HbA_{1c} >9.0% in spite of insulin treatment (odds ratio 1.14 [95% CI 1.10–1.17]), 42% more likely to have LDL cholesterol (LDL-C) ≥130 mg/dL (1.42 [1.38–1.46]) in spite of lipid-lowering treatment, and 50% more likely to have BMI ≥30 kg/m^2 (1.50 [1.50–1.54]). Women were less likely to be monitored for foot and eye complications. In 99% of centers, the percentage of men reaching the LDL-C target was higher than in women, the proportion of patients reaching the HbA_{1c} target was in favor of men in 80% of the centers, and no differences emerged for blood pressure.

FdR CV: FUMO e BMI nel Diabete

Gruppo Donna







Differenze di Genere nel DT2 : HbA1c

Donne con DT2 : Età, BMI , e Durata di Malattia sono più elevati , Ma dopo aggiustamento :

	M	F
Età (anni) →	65.7±11.1	68.4±11.4
BMI (Kg/m2) →	29.1±4.6	30.2±5.9
Fumo (%)	21.5% →	11.8%
Durata del diabete (anni)	10.0±9. →	11.1±9.7

Indicatori di esito intermedio:	F	M	delta
HbA1c ≤7.0% →	41.0	44.8	- 3.8
HbA1c >8.0% →	29.9	27.2	+ 2.7

Differenze di Genere nel DT2 : HbA1c

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Gruppo Donna

Lipidi

Epidemiology/Health Services Research
ORIGINAL ARTICLE

Sex Disparities in the Quality of Diabetes Care: Biological and Cultural Factors May Play a Different Role for Different Outcomes

A cross-sectional observational study from the AMD Annals initiative

MARIA CHIARA ROSSI, MSCPHARMCHEM[1]
MARIA ROSARIA CRISTOFARO, MD[2]
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GIUSEPPE LUCISANO, MSCSTAT[1]
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CONCETTA SURACI, MD[7]
CARLO GIORDA, MD[8]
ON BEHALF OF THE AMD ANNALS STUDY GROUP*

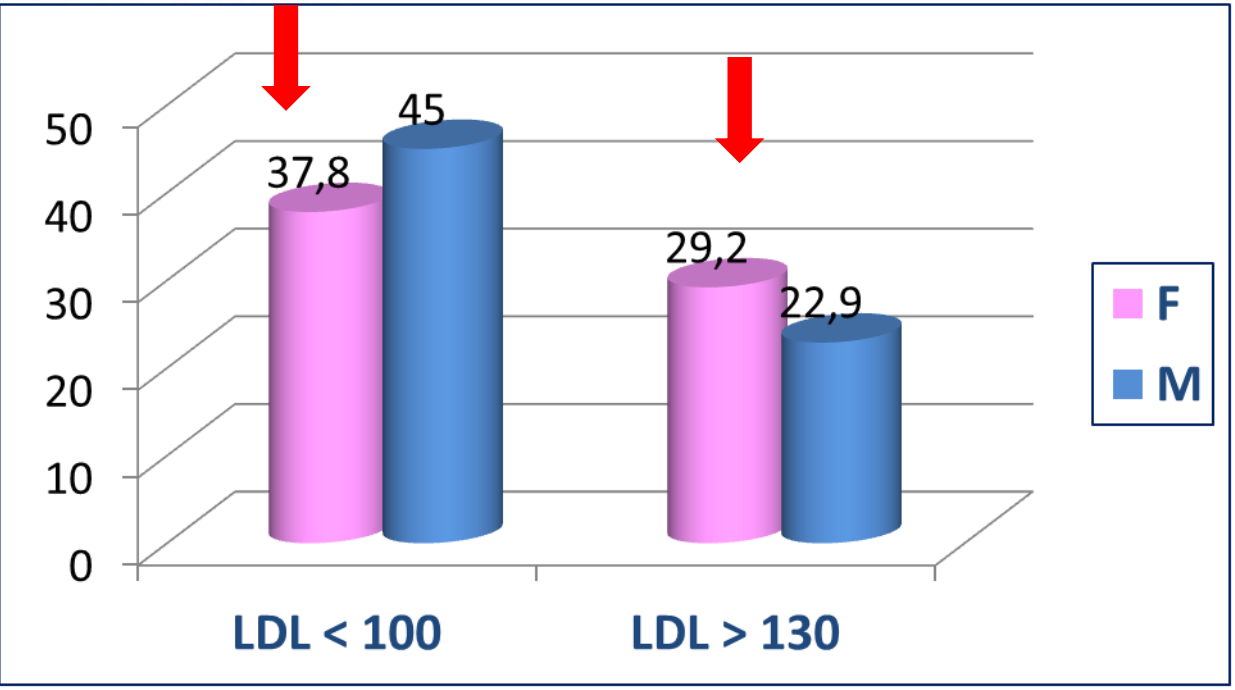
Gender medicine integrates aspects of biology, sociology, ethnicity, and culture responsible for different responses to care in women and men (1). Gender medicine applied to the field of diabetes care is particularly relevant because women with diabetes, regardless

Table 1—*Patient characteristics according to sex*

Patient characteristics	Mean (SD) or %					
	Overall		Age <75 years		Age ≥75 years	
	M	F	M	F	M	F
n	227,169	188,125	179,807	130,518	47,210	57,230
%	54.7	45.3	57.9	42.1	45.2	54.8
Age (years)	65.7 ± 11.1	68.4 ± 11.4	61.9 ± 9.2	63.1 ± 9.2	79.8 ± 3.7	80.6 ± 4.1
Oral agents	65.4	66.4	65.6	65.6	57.4	54.6
Oral agents + insulin	13.3	16.7	13.5	17.0	12.6	16.1
Insulin	15.5	16.4	13.6	13.1	22.8	23.8
Lipid-lowering agents (%)	41.2	41.2	42.2	43.0	37.3	37.5
Antihypertensive treatment (%)	56.6	61.0	54.6	58.3	64.3	67.3
≥2 antihypertensive agents (%)	33.0	36.1	36.4	41.1	46.7	53.1
Aspirin (%)	29.2	26.0	28.1	23.8	33.4	31.2

	F	M
Colesterolo totale (mg/dl)	194.4 (40.9)	182.3 (40.8)
Colesterolo HDL (mg/dl)	53.3 (14.0)	46.3 (12.6)
Colesterolo LDL (mg/dl)	112.5 (34.8)	106.6 (34.0)
Trigliceridi (mg/dl)	143.4 (88.3)	151.7 (121.6)

Target lipidici aggiustati per età e durata del diabete



L'assetto Lipidico nelle Donne resta significativamente peggiore anche dopo correzione dei dati per Età e Durata di malattia

Dati corretti	F	M	Diff %
LDL-C<100	37.8	45.0	- 7,2
LDL-C>=130	29.2	22.9	+ 6,3

Il mancato raggiungimento dei target di LDL-C è sempre a sfavore delle Donne con DT2 :

- ***Sia trattate che non tratte con Statine***
- ***le differenze aumentano con età e durata del DM.***

Le Donne con DT2 più anziane sono a maggior rischio di CHD.

Hindawi Publishing Corporation
International Journal of Endocrinology
Volume 2015, Article ID 957105, 8 pages
http://dx.doi.org/10.1155/2015/957105

Research Article

Age- and Gender-Related Differences in LDL-Cholesterol Management in Outpatients with Type 2 Diabetes Mellitus

Giuseppina Russo,[1] Basilio Pintaudi,[2] Carlo Giorda,[3] Giuseppe Lucisano,[2] Antonio Nicolucci,[2] Maria Rosaria Cristofaro,[4] Concetta Suraci,[5] Maria Franca Mulas,[6] Angela Napoli,[7] Maria Chiara Rossi,[2] and Valeria Manicardi[8]

[1] *Department of Internal Medicine, University of Messina, 98125 Messina, Italy*
[2] *Department of Clinical Pharmacology and Epidemiology, Fondazione Mario Negri Sud, Via Nazionale, 66030 S. Maria Imbaro, Italy*
[3] *Diabetes and Metabolism Unit, ASL TO5, 10023 Chieri, Italy*
[4] *Diabetes and Endocrinology Unit, Cardarelli Hospital, 86100 Campobasso, Italy*
[5] *Diabetes and Metabolism Unit, Sandro Pertini Hospital, 00157 Rome, Italy*
[6] *Diabetes and Metabolic Diseases Unit, San Martino Hospital, 09170 Oristano, Italy*
[7] *Department of Clinical and Molecular Medicine, Faculty of Medicine and Psychology, S. Andrea Hospital, Sapienza University, 00189 Rome, Italy*

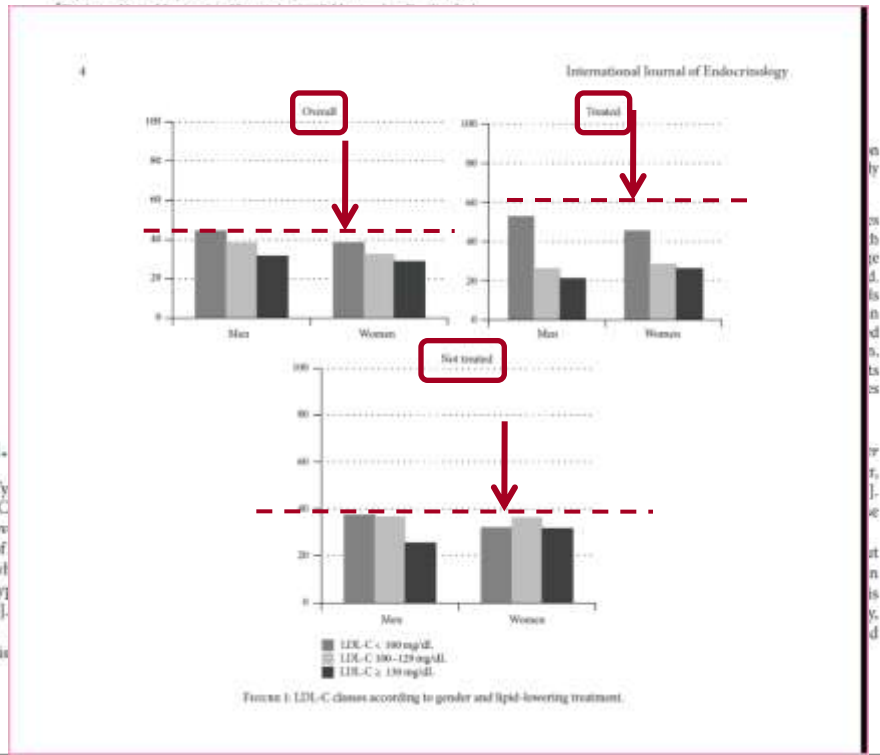


Figure 1: LDL-C classes according to gender and lipid-lowering treatment.

Nutrition, Metabolism & Cardiovascular Diseases (2013) 23, 235–241

Available online at www.sciencedirect.com

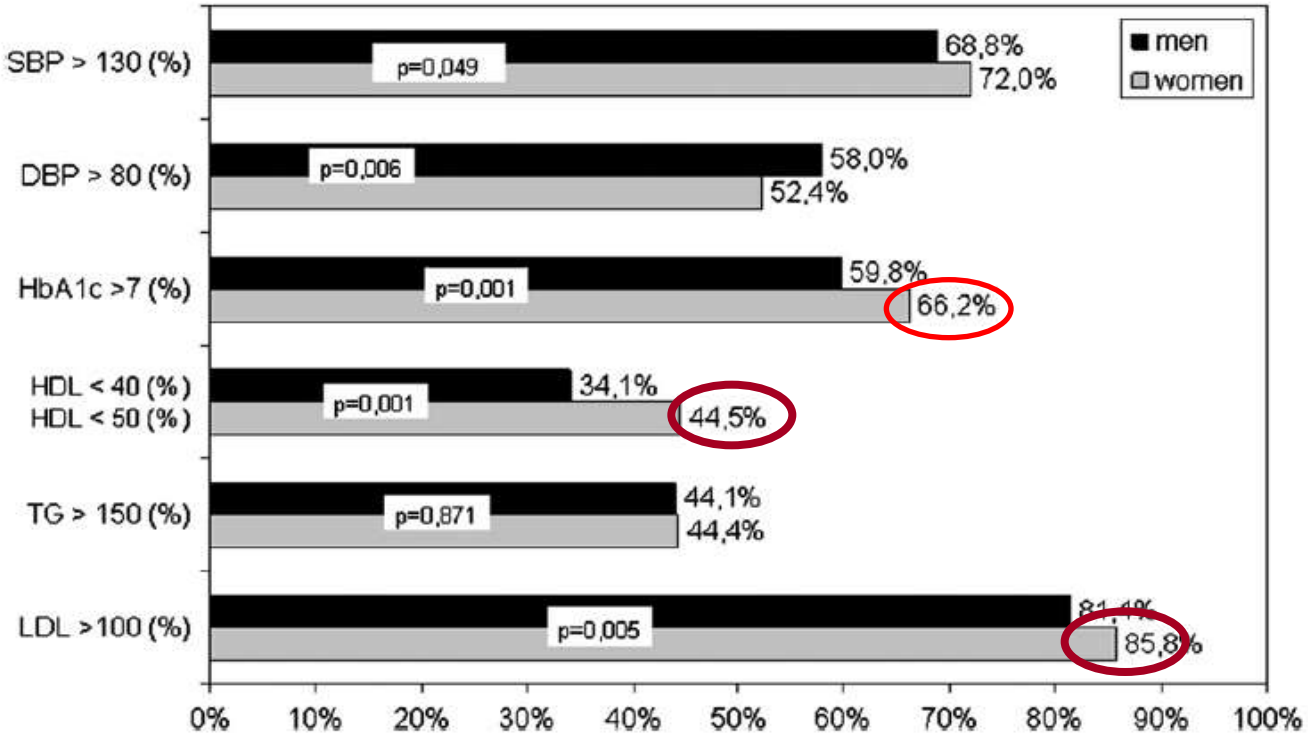
SciVerse ScienceDirect

journal homepage: www.elsevier.com/locate/nmcd

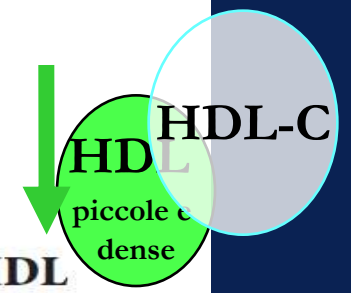
Nutrition, Metabolism & Cardiovascular Diseases

Women show worse control of type 2 diabetes and cardiovascular disease risk factors than men: Results from the MIND.IT Study Group of the Italian Society of Diabetology

L. Franzini [a,*,1], D. Ardigò [a,1], F. Cavalot [b,1], R. Miccoli [c,1], A.A. Rivellese [d,1], M. Trovati [b,1], I. Zavaroni [a,1], O. Vaccaro [d,1]



Hindawi Publishing Corporation
International Journal of Endocrinology
Volume 2014, Article ID 607924, 9 pages
http://dx.doi.org/10.1155/2014/607924



Research Article

Markers of Systemic Inflammation and Apo-AI Containing HDL Subpopulations in Women with and without Diabetes

Giuseppina T. Russo,[1] Annalisa Giandalia,[1] Elisabetta L. Romeo,[1] Angela Alibrandi,[2] Katalin V. Horvath,[3] Bela F. Asztalos,[3] and Domenico Cucinotta[1]

[1] *Department of Clinical and Experimental Medicine, University of Messina, Via C. Valeria, 98124 Messina, Italy*

TABLE 3: Univariate and multivariate regression analysis between hsCRP and IL-6 and metabolic, lipid, and Apo-AI containing HDL subpopulations profile in total population.

	hsPCR				IL-6			
	Univariate regression		Multivariate regression		Univariate regression		Multivariate regression	
	B	*P*	*B*	*P*	*B*	*P*	*B*	*P*
Anthropometric and metabolic parameters								
Di								
BM								
W								
Sy								
Fasting BG	0.03	0.005	—	—	0.01	0.009	0.011	0.02
Fasting insulin	0.09	0.004	—	—	0.04	0.009	—	—
Lipid and Apo-AI containing HDL subpopulations profile								
HDL-C	−0.10	0.005			−0.05	0.002	—	
Apo-AI	—	—	—	—	−0.03	0.003	—	—
Apo-AII	−0.21	0.04	—	—	−0.13	0.004	—	—
α-1 HDL	−0.11	0.04	—	—	—	—	—	—
α-2 HDL	—	—	—	—	−0.06	0.009	—	—
α-3 HDL	—	—	—	—	0.11	0.04	—	—
Pre-α-1 HDL	−0.39	0.007	−0.34	0.083	−0.13	0.03	—	—

Only significant *P* are presented. Waist C: waist circumference; BP: blood pressure; BG: blood glucose; Apo: apolipoprotein.

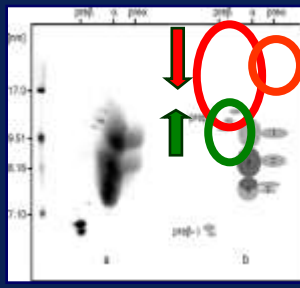
Nelle donne con DM2, le ***sottopopolazioni HDL*** più ***ateroprotettive*** si associano a ridotti livelli di hsPCR e IL-6

Atherosclerosis 210 (2010) 294–301

Contents lists available at ScienceDirect

Atherosclerosis

journal homepage: www.elsevier.com/locate/atherosclerosis



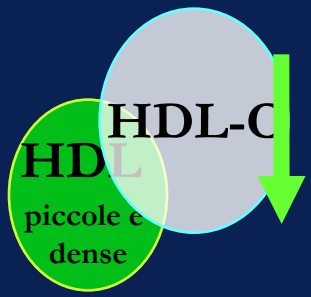
Influence of menopause and cholesteryl ester transfer protein (CETP) *Taq*IB polymorphism on lipid profile and HDL subpopulations distribution in women with and without type 2 diabetes

Giuseppina T. Russo[a,*], Kathleen V. Horvath[b], Antonino Di Benedetto[a], Annalisa Giandalia[a], Domenico Cucinotta[a], Bela Asztalos[b]

[a] Department of Internal Medicine, University of Messina, Italy

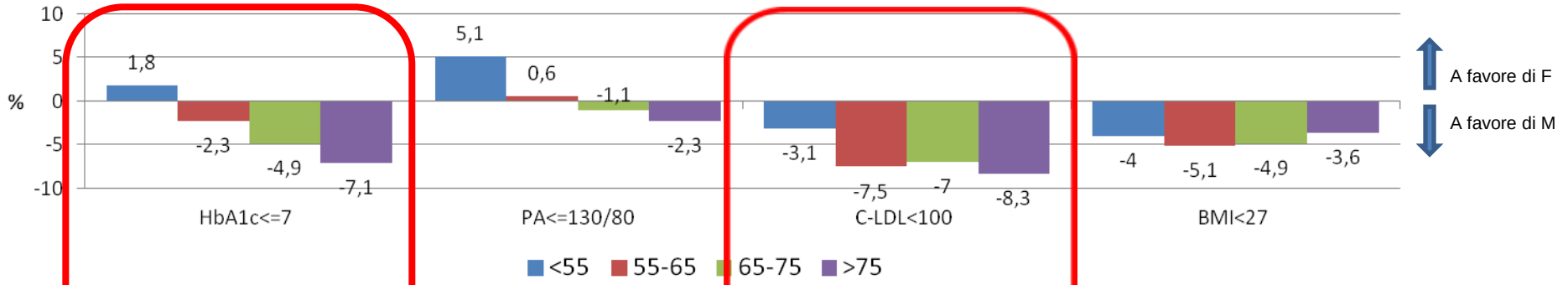
	Donne con DM2	Controlli	P
α-1 (mg/dl)	19.32±8.97	23.35±9.58	0.006
α-2 (mg/dl)	41.29±9.62	45.47±8.99	0.005
α-3 (mg/dl)	18.18±5.56	16.36±3.74	0.02
α-4 (mg/dl)	10.90±3.58	9.71±3.07	0.02
Pre-α1 (mg/dl)	5.51±3.39	6.74±3.46	0.02
Pre-α2 (mg/dl)	6.77±2.99	7.10±2.48	-
Pre-α3 (mg/dl)	2.46±0.97	1.95±0.63	0.0001
Pre-β1 (mg/dl)	15.30±7.96	15.16±9.81	-
Pre-β2(mg/dl)	1.84±1.02	2.36±1.24	0.004

Donne DM2 senza CHD hanno lo Stesso profilo sottopopolazioni HDL degli uomini con pregresso IMA

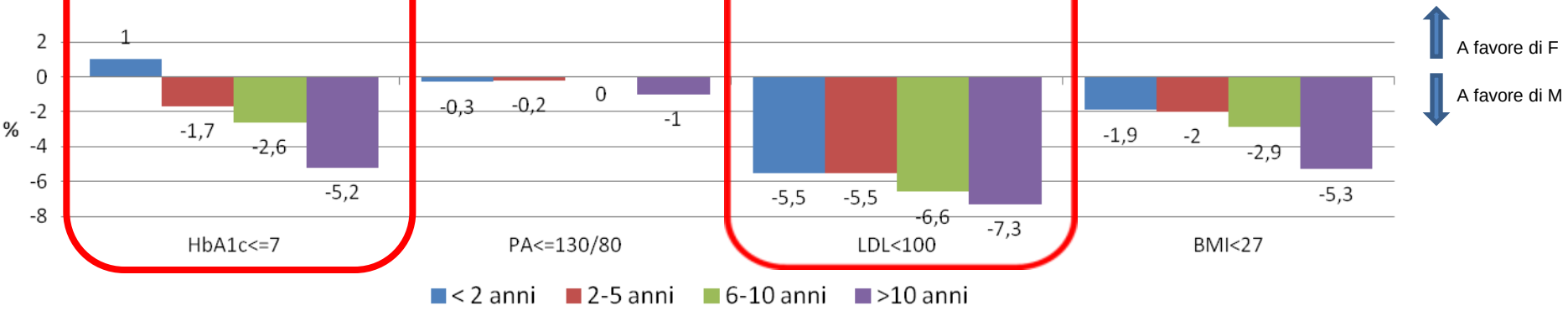


Qualità di cura per età e durata del diabete T2 : indicatori di esito favorevole

Differenza assoluta tra i sessi (F-M) negli indicatori di outcome favorevole per classi di età



Differenza assoluta tra i sessi (F-M) negli indicatori di outcome favorevole per classi di durata del diabete



EBM: Sottotrattamento delle donne con diabete vs uomini

- Tonstad S. – Undertreatment and overtreatment with statins:the Oslo H… Study 2000-2001. *J. Intern Med 2004;255:494.*
- Cull CA - Changing aspirin use in patients with type … …ne UKPDS. *Diab Med 2004;21:1368*
- Wexler DJ- Sex disparities in tr… …diac Risk factors in p. with T2D. *Diabetes Care 2005;28:…*
- Persell SD… …among adults with diabetes. *Ar… …004;164:2492*
- …iesan ML- Sex differences in hypertension-related renal
- and cardiovascular diseases in Italy: the I-DEMAND study. *J.Hypertens. 2012 Nov 7*

WHO : Women are not little men

Il genere influenza le scelte Terapeutiche ?

European Heart Journal (2011) 32, 1337–1344
doi:10.1093/eurheartj/ehr027

CLINICAL RESEARCH

Factors influencing underutilization of evidence-based therapies in women†

Raffaele Bugiardini[1]*, Andrew T. Yan[2], Raymond T. Yan[2], David Fitchett[2], Anatoly Langer[2], Olivia Manfrini[1], and Shaun G. Goodman[2], on behalf of the Canadian Acute Coronary Syndrome Registry I and II Investigators*

[1]Dipartimento di Medicina Interna, Cardioangiologia, Epatologia (Padiglione 11), University of Bologna, Via Massarenti 9, 40138 Bologna, Italy; and [2]Terrence Donnelly Heart Centre, Division of Cardiology, St. Michael's Hospital, University of Toronto and the Canadian Heart Research Centre, Toronto, Ontario, Canada

Received 18 October 2010; revised 8 January 2011; accepted 25 January 2011; online publish-ahead-of-print 7 March 2011

See page 1313 for the editorial comment on this article (doi:10.1093/eurheartj/ehr083)

Aims Previous studies have reported differences in the use of cardiovascular medications for acute coronary syndromes (ACSs) according to the sex of the patient. We analysed which clinical factors are associated with underutilization of evidence-based therapies in women.

Methods and results From the Canadian Registry of ACS I and II, 6558 patients (4471 men and 2087 women) with a final diagnosis of ACS were selected for the current analysis. Covariates were chosen using the approach described by Blackstone. The final selected model included 23 patient clinical variables. Women were less likely than men to receive beta-blockers (75.76 vs. 79.24%; $P < 0.01$), lipid-modifying agents (56.37 vs. 65.44%; $P < 0.0001$), and angiotensin-converting enzyme (ACE)-inhibitors (55.52 vs. 59.99%; $P < 0.01$). Female sex and clinical decision not to investigate with cardiac catheterization were the strongest independent predictors for not receiving lipid-modifying agents and ACE-inhibitors. Age, Killip class 2, and Killip class 3/4 were significant independent predictors of underutilization of beta-blocker use. Women were older (69 ± 12 vs. 64 ± 12; $P < 0.01$) with a higher prevalence of Killip class ≥ 2 (19.95 vs. 15.54%; $P < 0.068$), and they were less likely to be referred for cardiac catheterization (41.9 vs. 49.6%; $P < 0.001$).

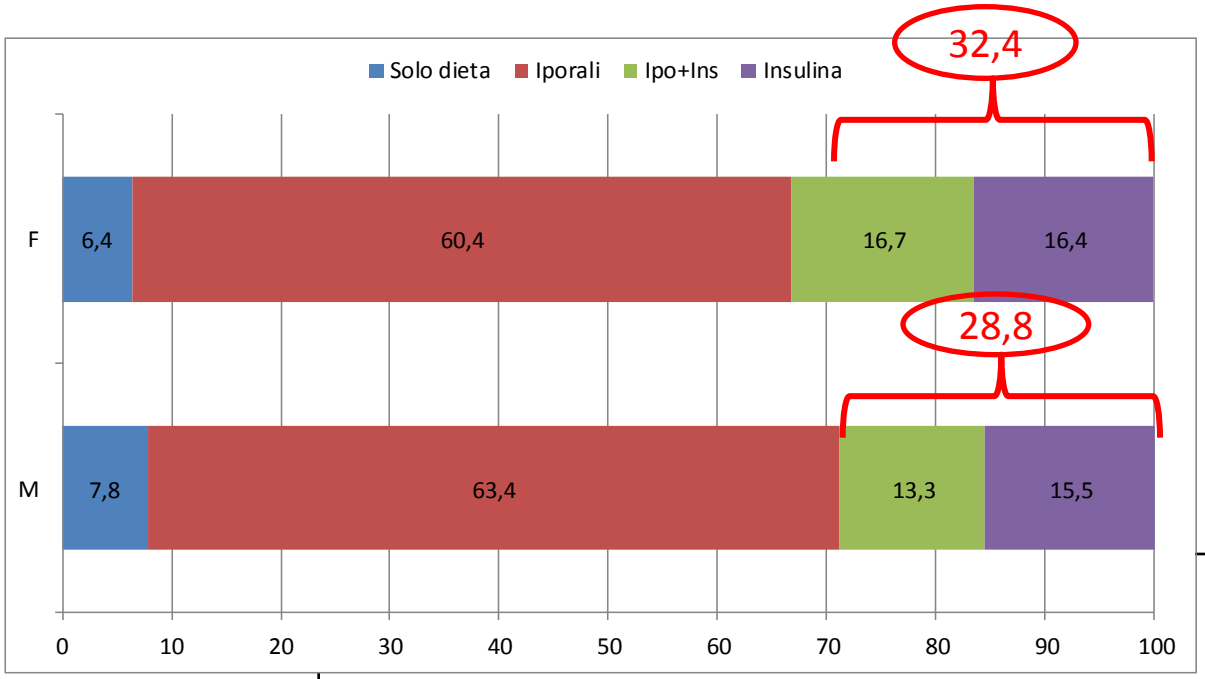
Conclusions The current findings demonstrate that underutilization of evidence-based therapies in women with ACS compared with men is associated with multiple factors related to the patient (age), the consequences of the disease (congestive heart failure), and the physician's assessment of patient risk (decision to catheterize). Female gender remains associated with underutilization of lipid-modifying agents and ACE-inhibitors despite adjustment for these confounders.

Keywords Women • Evidence-based therapies

Il genere femminile Resta un predittore indipendente di sotto Utilizzo di Statine e ACE-I

Sottotrattamento delle donne con Diabete vs uomini

DT2 – Trattamento del diabete . Appropriatezza e Intensità



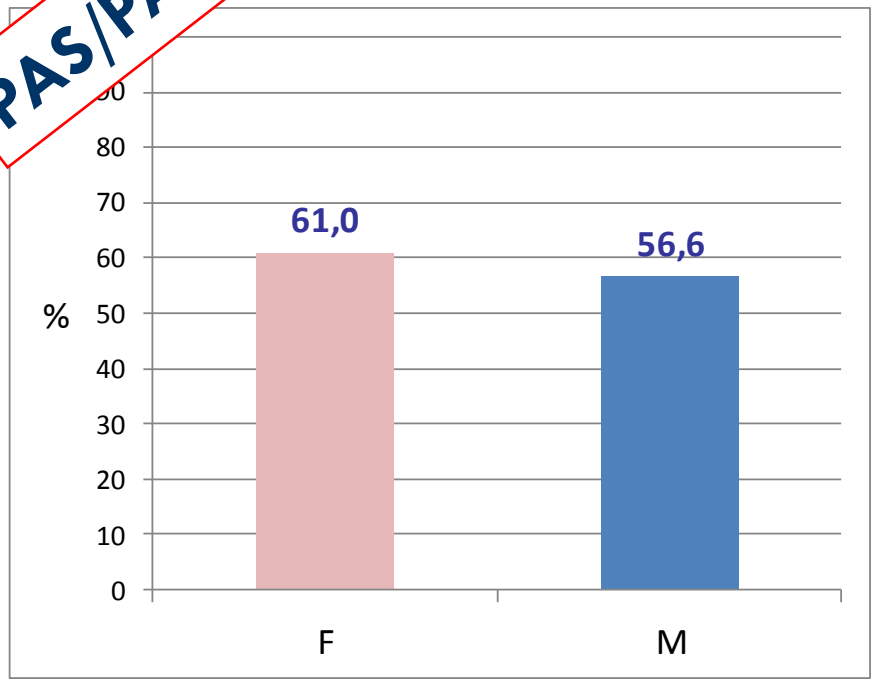
No insulina con HbA1c>9.0%

F	M
37.8	43.5

Le donne sono trattate più intensamente : con Insulina e Insulina + Ipo-Orali

DT2 - Intensità di Trattamento

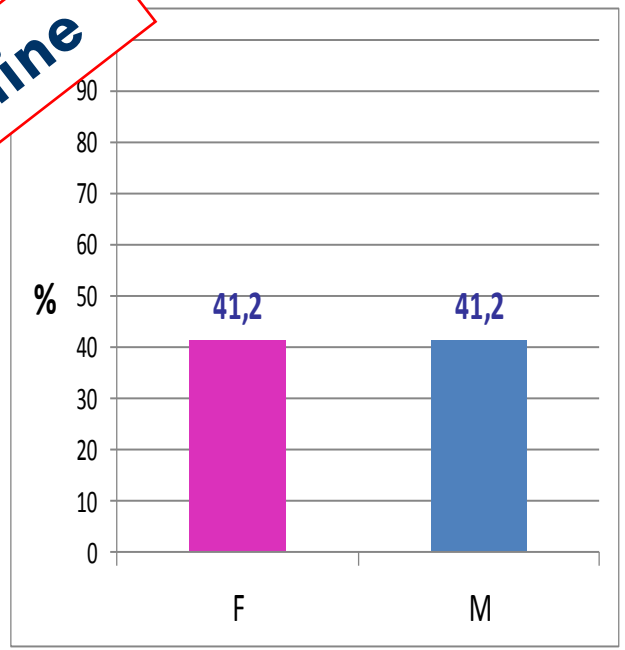
PAS/PAD



Le donne sono più frequentemente trattate con farmaci antiipertensivi e con più di 2 farmaci.

Farmaci Ipolipemizzanti

Statine



Stessa % di M e F trattati con ipolipemizzanti (statine)

Differenze di genere nella dislipidemia nel diabete di tipo 2

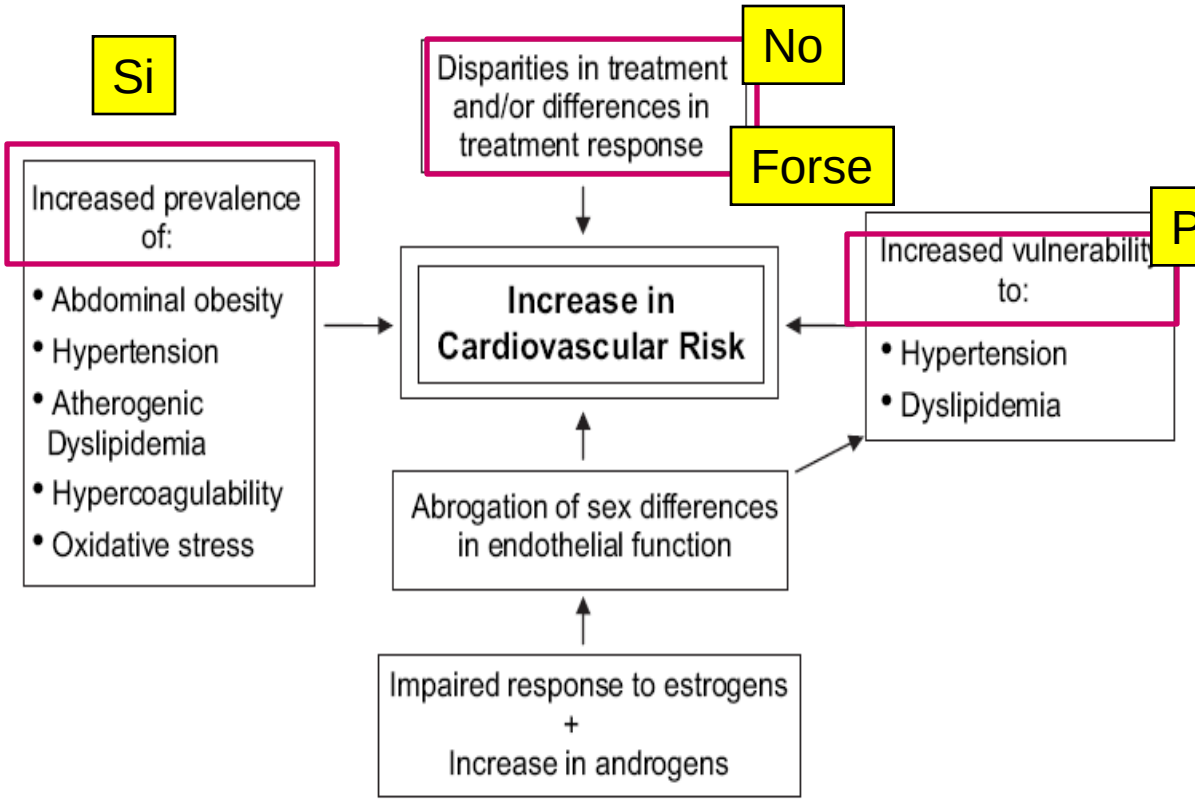


Figure 2 Possible causes of the high cardiovascular risk in women with diabetes.

Modificata da Rivellese et al., NMCD 2010

Rischio CV nel DT1

225 DT1 consecutivi :

- Controllo glicemico e freq . complicanze sono simili.
- Differenze nel pattern lipidico e nell'obesità
- **Minore prescrizione di Statine e ASA nelle donne con Dt1**

Kautzky-Willer *et al. Cardiovascular Diabetology* 2013, **12**:78
http://www.cardiab.com/content/12/1/78

CARDIO VASCULAR DIABETOLOGY

ORIGINAL INVESTIGATION **Open Access**

Sex-specific-differences in cardiometabolic risk in type 1 diabetes: a cross-sectional study

Alexandra Kautzky-Willer[1*], Kathrin Stich[2], Juliane Hintersteiner[2], Alexander Kautzky[1], Majid Reza Kamyar[2], Johannes Saukel[3], Julienne Johnson[4] and Rosa Lemmens-Gruber[2]

Abstract

Background: Little is known about the impact of sex-specific differences in the management of type 1 diabetes (T1DM).
Thus, we evaluated the influence of gender on risk factors, complications, clinical care and adherence in patients with T1DM.

Methods: In a cross-sectional study, sex-specific disparities in glycaemic control, cardiovascular risk factors, diabetic complications, concomitant medication use and adherence to treatment recommendations were evaluated in 225 consecutive patients (45.3% women) who were comparable with respect to age, diabetes duration, and body mass index.

Results: Although women with T1DM had a higher total cholesterol than men, triglycerides were higher in obese men and males with HbA1c>7% than in their female counterparts. No sex differences were observed in glycaemic control and in micro- or macrovascular complications. However, the subgroup analysis showed that nephropathy was more common in obese men, hyperlipidaemic women and all hypertensive patients, whereas peripheral neuropathy was more common in hyperlipidaemic women. Retinopathy was found more frequently in women with HbA1c>7%, obese men and in both sexes with a long duration of diabetes. The multivariate analysis revealed that microvascular complications were associated with the duration of disease and BMI in both sexes and with hyperlipidaemia in males. The overall adherence to interventions according to the guidelines was higher in men than in women. This adherence was concerned particularly with co-medication in patients diagnosed with hypertension, aspirin prescription in elderly patients and the achievement of target lipid levels following the prescription of statins.

Conclusions: Our data showed sex differences in lipids and overweight in patients with T1DM. Although glycaemic control and the frequency of diabetic complications were comparable between the sexes, the overall adherence to guidelines, particularly with respect to the prescription of statins and aspirin, was lower in women than in men.

Keywords: Type 1 diabetes mellitus, Gender, Diabetic complications, Cardiovascular risk, Blood pressure, Lipid profile

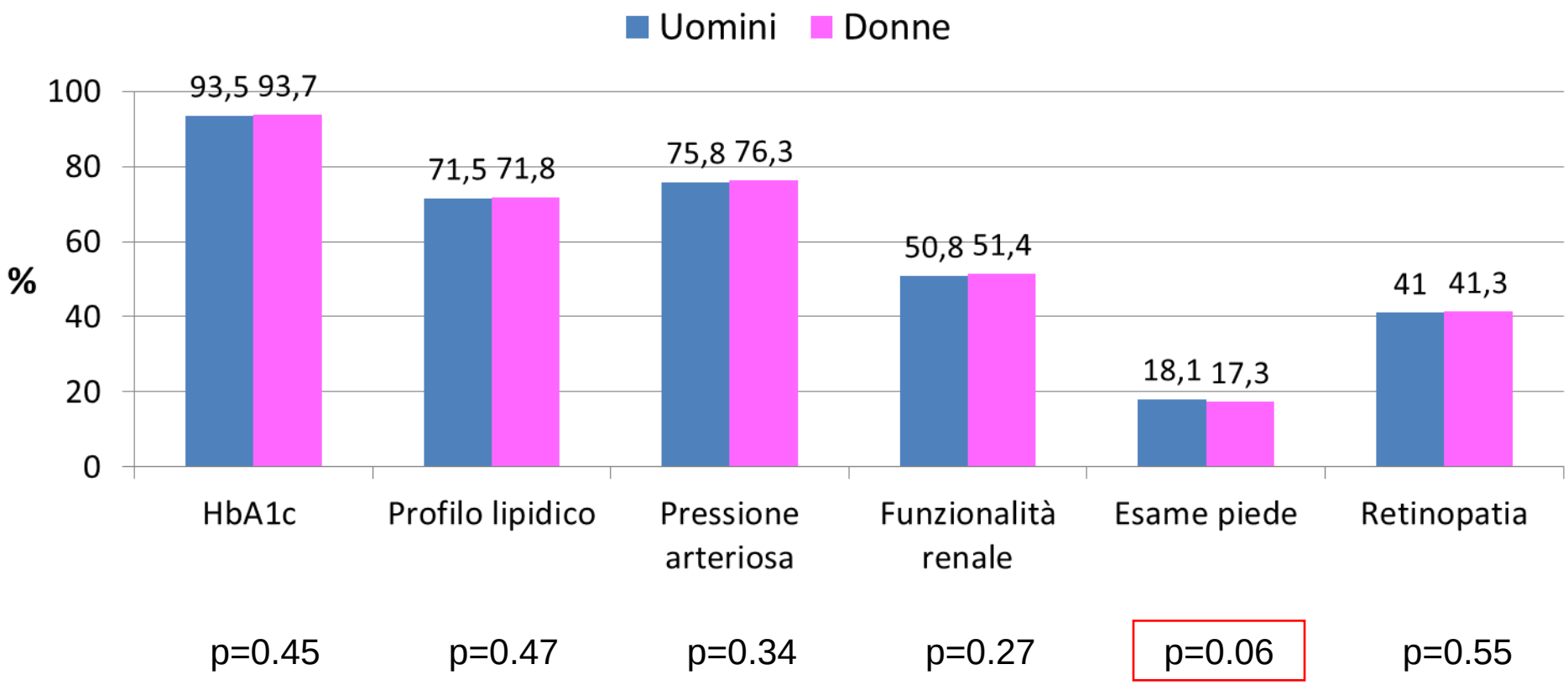
Annali di Genere : Focus sul DT1

Caratteristiche	M	F	p-value
N	15,708	13,094	
Età media (anni)	44.5±16.0	45.0±17.0	0.17
Fumatori (%)	31.8	22.7	<0.0001
Durata DM1 (anni)	18.3±13.0	18.8±13.0	0.0004
BMI (Kg/m2)	25.0±3.7	24.2±4.3	<0.0001
Trattamento per il diabete (%)			
Microinfusore	**13.9**	**19.6**	<0.0001
Terapia multiiniettiva	**86.1**	**80.4**	

Stessa età media e Durata di malattia.
Donne con DT1 più magre.

Indicatori di processo nel DT1

% soggetti sottoposti nel 2011 ad almeno una valutazione di:



DT1 – Raggiungimento dei target

Indicatori di outcomes intermedi	F (%)	M (%)	p
HbA1c ≤ 7.0% (≤ 53 mmol/mol)	**20.4**	**25.6**	<0.0001
LDL-C <100 mg/dl =	**41.5**	**41.4**	0.91
BP ≤ 130/80 mmHg	**69.5**	**61.5**	<0.0001
Presence of micro/ macroalbum.	**24.7**	**30.2**	<0.0001

Le donne con DT1 raggiungono di meno il target di HbA1c vs i maschi, mentre ottengono risultati simili per l'LDL-Col, e migliori per quanto concerne il target di Pressione Arteriosa.

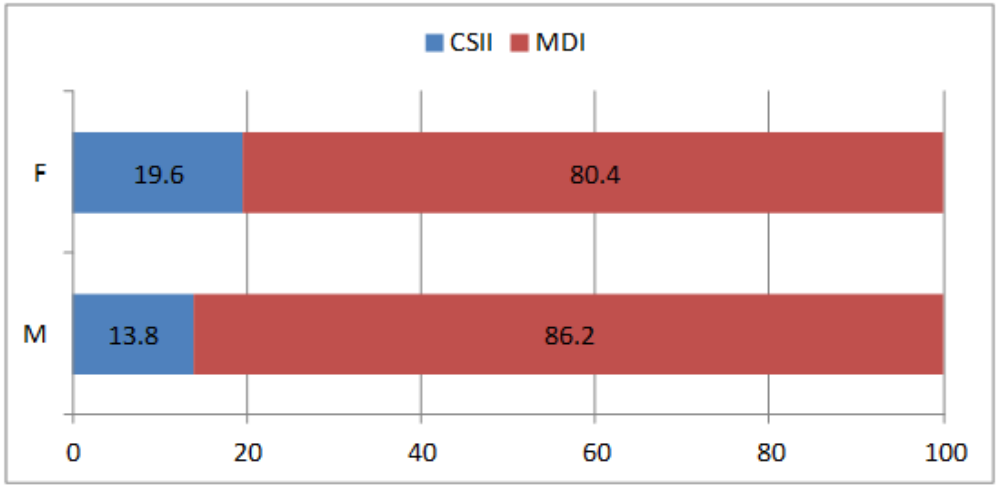
TRATTAMENTO INSULINICO:

Multiiniettiva (MDI) vs Microinfusore (CSII)

- **Le F sono più spesso trattate con CSII dei M (19,6 vs 13,2%), ma raggiungono il target di HbA1c sempre in % inferiore vs i M**

- **In entrambi i generi il trattamento con CSII si associa ad un aumento del 6% nella % di DT1 a target per l'HbA1c rispetto alla multiiniettiva (MDI)**

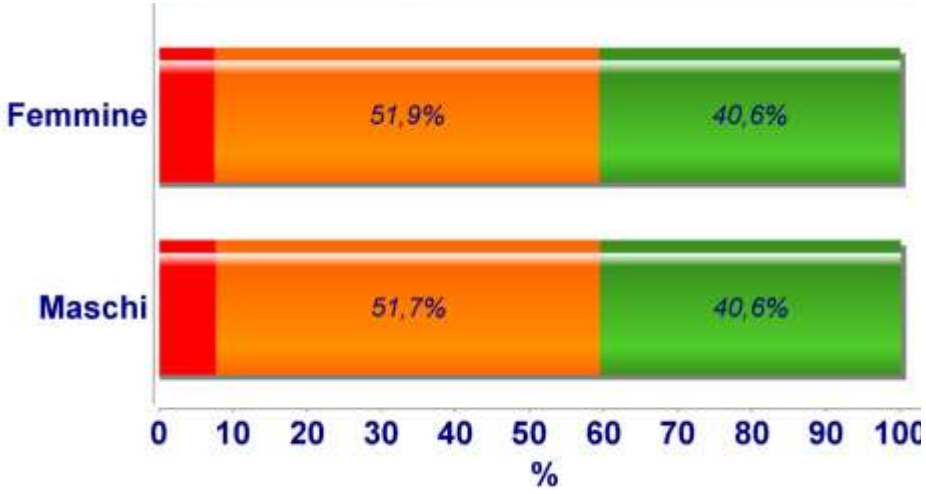
Da MDI a CSII:
F a target da 19,3 a 25,1%;
M a target da 24,7 a 31,2%



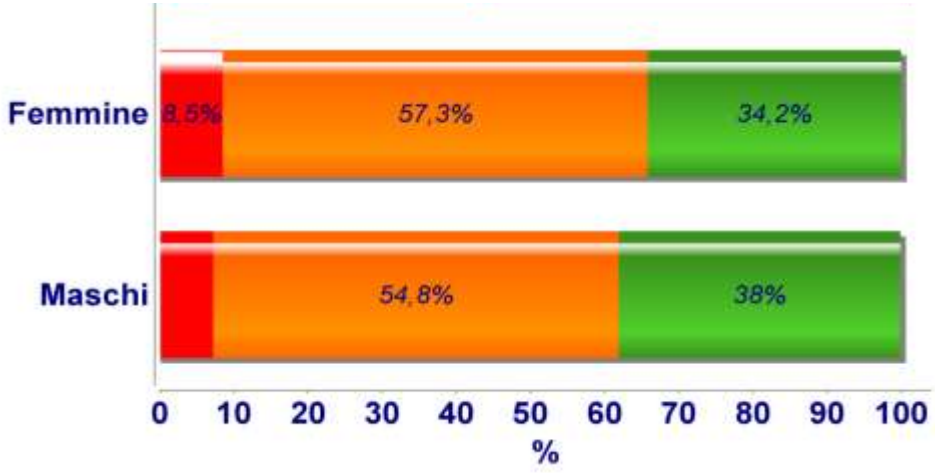
SCORE Q :

Misura riassuntiva di qualità di cura. Correla con il rischio di eventi Cardio-Vascolari

DM1



DM2



L'analisi per genere mostra come, nel DM1, non ci sia alcuna differenza tra i sessi riguardo le classi di score di qualità. Nel DM2, la quota di soggetti con punteggi <15 e fra 15 e 25 è invece superiore nelle donne.

Score Q nel DT1

Qualità di cura complessiva per genere e per schema di trattamento nel DM1 (N=28.802)

Score Q medio			
	Uomini	Donne	p
MDI	24.9±8.5	24.7±8.5	0.26
CSII	25.8±8.3	26.2±8.4	**0.03**

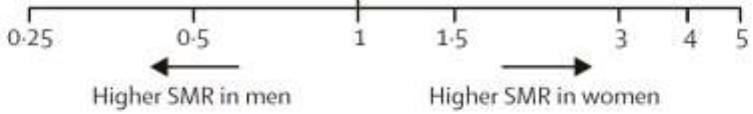
Lo Score Q medio migliora in modo significativo nelle Donne trattate con CSII rispetto a quelle trattati con MDI

Rischio di Morte nel DT1: differenze di genere

Metanalisi di 26 studi che hanno incluso **214.114** individui e **15.273** eventi .

End point – Mortalità da tutte le cause

	Studies	Individuals	Events	Ratio of SMR (95% CI)	p value	I^2	I^2 p value
Coronary heart disease[10,12,27,31,39,40,44]	7	59 383	1427	2·54 (1·80–3·60)	<0·0001	67·86%	0·33
Stroke[12,16,26,39]	4	45 677	371	1·37 (1·03–1·81)	0·0308	0·00%	0·01
Cardiovascular disease[10,12,17,21,28,33,39,40,42]	9	75 983	2166	1·86 (1·62–2·15)	<0·0001	2·39%	0·42
Renal disease[10,21,28]	3	30 332	142	1·44 (1·02–2·05)	0·0404	0·00%	0·60
Cancer[21,28,33,39]	4	31 018	119	1·23 (0·79–1·98)	0·32	0·00%	0·99
Accident and suicide[10,21,28,33,44]	6	36 320	260	1·34 (0·97–1·84)	0·073	0·00%	0·77



Mortalità per tutte le cause nelle Donne :+ 40%

Huxley at all - Risk of all –cause mortality and vascular events in Women vs Men with T1D: a sistematic review and metanalisi.

Lancet Diabetes Endocrinol 2015; 3: 198–206

Mort CV aumentata nel DT1 : perché ?

Lancet Diabetes Endocrinol 2015; 3: 198–206

- **This sex disparity in glycaemic control has been attributed to**
  - a **greater impairment of insulin sensitivity during puberty** in young women with DM1,
  - an increased propensity towards **eating disorders**
  - **underdosing with insulin in women affected by DM1** vs **men** .
  - A manifestation of the well-reported disturbances **in the hypothalamus–pituitary–ovarian axis** that are associated with diabetes, including delayed age of menarche, menstrual irregularities, and precocious menopause.

Conclusioni - 1

- **Le Donne con DT2 hanno un peggior profilo di rischio CV** , nonostante il **sovra- trattamento con insulina o con terapia combinata e il medesimo trattamento con Statine vs gli uomini**

- **Le Donne con DT1 hanno maggiori difficoltà ad ottenere un buon compenso metabolico, indipendentemente dal trattamento (CSII o MDI) e nonostante siano più trattate con CSII.**

- **Non ci sono differenze nella qualità di cura nel DT1 ,ma in entrambi i sessi c'è un miglioramento del compenso quando sono trattati con CSII.**

- La uniformità dei dati tra i centri depone per la **esistenza di differenze biologiche/ormonali** che condizionano i risultati a sfavore delle donne sul fronte dei lipidi nel DT2, e sul compenso metabolico nel DT1 , così come i risultati sul controllo pressorio a sfavore degli uomini con DT1.

Problemi aperti

- **Se il peggiore profilo di rischio CV nelle donne con DT2 può spiegare la maggiore mortalità CV nelle donne vs gli uomini con DT2**
- **Il peggior compenso metabolico nel DT1 può spiegare la maggiore mortalità CV e per tutte le cause nelle donne con DT1 ? (metanalisi)**
- **C'è un problema di ridotta sensibilità all'insulina ? di diversa risposta ai farmaci (statine , ma anche ad altre terapie del diabete)?**
- **Occorrono strategie educative e approcci terapeutici personalizzati e differenziati per genere per annullare le differenze**

Grazie dal Gruppo Donna