Differences between Italian and immigrant female citizens' hospitalizations related to obstetrical and gynecological diseases in the province of Ferrara, Italy

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Abstract

Introduction - In the recent years, the province of Ferrara, in the Italian Northeast has been characterized by the phenomenon of massive immigration. The aim was to study hospital admissions related to the immigrant female population and its implications. Materials and Methods - The Local Healthcare Unit of the National Health Service provided data related to hospital admissions between 01/01/2006 to 31/12/2006. Results and Conclusions - On 53699 admissions of female subjects, 2656 were related to immigrants. A total of 1509 admissions were obstetrical or gynecological hospitalizations. The high number of DRGs representative of spontaneous abortions and voluntary interruptions of pregnancy may be an expression of social problem of some sections of the immigrant people community. The dissemination of information on the existence of social assistance programs is important. This can prevent the occurrence of critical health situations, especially during pregnancy and childbirth.

BACKGROUND AND AIM OF THE WORK

The territory of the province of Ferrara, in north-eastern Italy has been in recent years characterized by the phenomenon of mass migration of people from countries especially outside the European Union [1]. This led to differing health needs compared to the Italian population one. This could be a result from the differences in demographic characteristics of the two populations, such as the lower mean age of the immigrant population. The present work is aimed to identify areas of possible interventions allowing optimization of resources in the light of possible changes over time.

MATERIALS AND METHODS

The Local Healthcare Unit (LHU) of Ferrara provided data related to the hospital admissions from 01/01/2006 to 31/12/2006 granted to immigrant and Italian citizens. The database included nationality, date of birth, residence. The gender was inferred from the tax code. From a health-related point of view, the database showed data related to the type of access, the type of admission (ordinary or day hospital (DH)), the days of hospitalization, the hospital facility, the DRG (Version 19). The facilities included those directly controlled by LHU, the University Hospital, private structures, and extra-provincial structures. Gynecological-DRG included those from 353 to 369 included and obstetrical-DRG included those from 370 to 384. Access 2003 [2] and Excel 2003 [3] were used to manage and analyse data.

RESULTS

There were 91370 admissions (ordinary and DH). The number of admissions for Italian patients were 87581 (males 36538 (41.7%), females 51043 (58.3%)); and for immigrants were 3789 (males 1133 (29.9%), females 2656 (70.1%)). With regard to the type of housing, there were slight differences ($p<0.001$) among Italians (ordinary 71.5%, DH 28.5%) and immigrants (ordinary 72.5, DH 27.5). With regard to females, a total of 53699 hospitalizations was observed: 51043 were related to Italian patients (95.1%) while 2656 (4.9%) to immigrant patients. Out of a total of 10345 hospitalizations for obstetric or gynecological DRG performed in 2006, 8836 (85.4%) were granted to Italian patients and 1509 (14.6%) to immigrant patients ($p<0.001$). The ratio between ordinary and DH hospitalization (ordinary/DH) was 0.601 in Italian patients and it was 0.497 in immigrant patients ($p<0.001$). The distribution by age of hospitalized patients is shown in Table 1.

Figure 1

Table 1 – Distribution by age classes of gynecological or obstetrical hospitalizations in 2006 in province of Ferrara: female population

	Age classes															
	0-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-	Total
Italians	0	18	138	433	1138	2046	1847	875	549	457	328	254	294	197	262	8836
Immigrants	0	3	75	289	425	345	195	84	43	29	8	1	5	7	0	1509
Total	0	21	213	722	1563	2391	2042	959	592	486	336	255	299	204	262	10345

Table 2 shows the comparison amongst the major obstetrical and gynecological DRG, sorted by absolute frequencies, in Italian and immigrant population.

Figure 2

Table 2 – Hospitalizations divided by DRGs

DRGs		Italian	Immigrant	Total
373	Vaginal Delivery w/o Complic Diagnoses	1548	372	1920
381	Abortion w/o D&C	1004	367	1371
359	Uter, Adnex Pr, Ca In Situ/Non-Malig w/o CC	1254	58	1312
364	D&C, Conization Except for Malignancy	1188	56	1244
371	Cesarean Section w/o CC	689	134	823
360	Vagina, Cervix & Vulva Procedures	711	62	773
383	Oth Antepartum Dx w Med Complications	360	129	489
384	Oth Antepartum Dx w/o Med Complications	389	36	425
379	Threatened Abortion	247	68	315
369	Menstrual,Other Female Repro Syst Disor	260	48	308
380	Abortion w/o D&C	145	42	187
374	Vaginal Delivery W Steril &/Or D&C	138	26	164
382	False Labor	116	18	134
370	Cesarean Section w CC	89	20	109
356	Female Repro System Reconstructive Proc	83	2	85
372	Vaginal Delivery W Complic Diagnoses	59	13	72
378	Ectopic Pregnancy	52	19	71
366	Malignancy, Female Repro System w CC	67	3	70
355	Uter, Adnex Proc Non-Ov/Adnex Malig w/o CC	65	2	67
358	Uter, Adnex Pr, Ca In Situ/Non-Malig w CC	52	4	56
357	Uter, Adnex Proc for Ovar, Adnexal Malig	48	3	51
361	Laparoscopy, Incisional Tubal Interrupt	47	4	51
363	D&C, Conization, Radio-Implant, for Malig	45	1	46
368	Infections, Female Repro System	33	9	42
365	Other Female Repro System O.R. Proc	35	1	36
353	Pelvic Evisc,Rad Hysterect & Rad Vulvect	33	2	35
367	Malignancy, Female Repro System w/o CC	32	3	35
376	Postpart & Post Abort Dx w/o O.R. Proc	18	4	22
377	Postpart & Post Abort Dx w O.R. Proc	17	2	19
354	Uter, Adnex Proc Non-Ov/Adnex Malig w CC	9	0	9
362	Endoscopic Tubal Interruption	3	0	3
375	Vagin Deliv W O.R Proc Ex Steril &Or D&C	0	1	1
Total		8836	1509	10345

Table 3 shows the admissions divided by facility.

Figure 3

Table 3 – Hospitalizations divided by facility

	LHU	Outside province	Universitay Hospital	Private	Total
Italian	3649	1123	3858	206	8836
Immigrants	659	91	756	3	1509
Total	4308	1214	4614	209	10345

DISCUSSION

Ferrara is aligning to many other Italian cities in the goal to assess the real health needs of the immigrant population. Few years ago, the admissions made by immigrants were less than a 1% [4]; at present they overcame the 4% threshold. Considering both sexes, we have more accesses from females in percentage. This seems to be in contradiction with the classical theory that predict that an early immigration is composed by young adult males [5]. This is explainable by the fact that in Italy the practice of employment of women to help elderly people in daily needs is widespread. Most of these people are migrant women from Eastern Europe. The lower median age of immigrant patients compared to Italian ones (32.5 years vs 55.8 years) is explainable in presence of a recent migratory phenomenon, associated with a low number of familiar reunions. Regarding the causes of hospitalizations, we focused on the large number of DRGs 380 and 381 which represents spontaneous abortions and mainly voluntary interruptions of pregnancy. This large amount of induced abortions may be the expression of a social problem in the immigrant population related to the difficulties in interrupting work in order to complete the pregnancy. Another possible explanation could be the lack of resources to care for and to raise children. There is a need to improve the immigrant population's awareness of social care programs and perspectives (often ignored), in terms of guarantee of the rights to work during and after the pregnancy. The dissemination of information of such programs should be early so that it can be activated in the early months of pregnancy to ensure a bettert assistance. This could avoid both the induced abortion and the occurrence of critical adverse health situations during pregnancy and childbirth. The high incidence of ectopic pregnancies and complications of peripartum period amongst the immigrants is noteworthy. With regard to cancer, the immigrant population, probably because of the lower average age, has a lower incidence than the Italian population. The use of healthcare facilities seemed geared to a greater use of the facilities located in the province compared to the Italian population. We also found lack of utilisation of private facilities: this may highlight a significant confidence in public healthcare facilities, or lower utilisation of the higher cost private facilities by the usually lower income immigrants.

CONCLUSIONS

The present data show a new perspective of state of health in Ferrara. The differences between the health resource utilisation by the Italian population and the growing immigrant population require a comprehensive assessment. There should be greater awareness of the existence of social programs amongst the immigrants. This can prevent the occurrence of critical health situations, especially during pregnancy and childbirth and improve care for the

immigrants.

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