

# Evaluation of Measures to Facilitate Access to Care for Pregnant Deaf Patients: Use of Interpreters and Training of Caregivers in Sign Language

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## Abstract

**Objectives:** Deafness affects about 7% of the French population. In this context, the clinic of obstetrics and gynecology of Grenoble University Hospital (France) has set up two affirmative actions to assist pregnant signing-deaf patients (who preferentially “speak” sign language). One is, a partnership with qualified French Sign Language interpreters from the Deaf Patient Reception and Care Unit, and the second is, sign language training for nine medical professionals. The aim of this study is to evaluate these initiatives in deaf patient care and propose some potential improvements.

**Material and methods:** This was a descriptive study conducted from information contained in the computerized and paper files of 22 pregnant signaling deaf patients.

**Results:** There is significant adaptation of patient management during scheduled consultations and hospitalization, whereas the adaptation rate remains poor for emergency situations.

**Conclusion:** The adaptation of care to the deaf turns out to be perfectible, through advance planning of the entire pregnancy consultation schedule. In emergency situations, the creation of a sign language interpreter on-call position would greatly improve the access to appropriate for these patients.

**Keywords:** Deafness; Pregnancy; Health accessibility; Sign language

## Introduction

Severe deafness affects 480,000 people in France [1]. Those becoming deaf (about 200,000 people) and the hard of hearing (again about 200,000 people) use, without exception, only spoken French. In contrast, the profoundly deaf from birth or early childhood (80,000 to 100,000 people), who define themselves as “Deaf” are mostly bilingual, using French (written or oral) to varying degrees, and sign language as their main language (or language of life). The hard of hearing and those becoming deaf have no particular difficulty with written French. However, on the contrary, 80% of Deaf have difficulty in using the written French used by the hearing, and use a French with specific characteristics (Deaf Written French); thus, the use of usual French (oral or written) is a source of major misunderstandings between Deaf and hearing people [2,3]. About 250,000 people are users of sign language in France. The choice of the language to be used during care, French or sign language, is up to the patients themselves [4]. It is thus the duty of caregivers to ensure the necessary linguistic conditions, whatever the patient’s choice of language [5].

The particularity of obstetrics compared to other medical disciplines, is that it associates not only many scheduled consultations to monitor the pregnancy, but also medical care that takes place outside any programming, at night, on weekends and during public holidays, including emergency consultations during pregnancy and especially for delivery. This makes it particularly difficult to use interpreters.

To meet the strong demand from the Deaf population and also the legal obligations concerning the handicapped in France [6,7], the Obstetrics and Gynecology clinic (O and G) of Grenoble University Hospital has introduced measures to support women and couples, regardless of the language used [8] to provide adapted care. The main objective of this study was to evaluate the rate of use of adapted

care for signing pregnant deaf women, whatever the circumstances of the consultation during pregnancy, in a hospital that has developed a formal policy of accessibility to care for the Deaf.

## Materials and Methods

The present study was a descriptive retrospective single center study conducted in the O and G clinic of Grenoble University hospital during the period Feb 1, 2007 to Dec 31, 2010 and concerned all signing pregnant deaf patients. We excluded non-signing deaf patients (those who did not know sign language), patients presenting only for consultation and/or patients who did not give birth in the service. A collaboration agreement (which described the “Deaf patient” protocol) was signed in January 2007 between the O and G clinic on one hand, and the Rhône-Alpes Deaf Patient Reception and Care Unit (DPRCU) based in the hospital, on the other. The latter is a hospital department whose primary mission is to provide quality of care for the Deaf population. Its team consists of qualified interpreters, Deaf mediators, doctors, a psychologist, and a healthcare manager, with all staff fluent

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in sign language. The “Deaf patient” protocol states that when making appointments for consultation, scheduling hospital admission, and hospital discharge for signing deaf patients, staff must work with the DPRCU to plan the presence of an interpreter, with or without a Deaf mediator. If a Deaf patient is admitted to hospital, staff should call the secretary of the unit to organize the presence of a member of the unit during the patient’s stay. This protocol is applicable only during the opening hours of the DPRCU, i.e., Monday to Friday from 8:30 am to 5:30 pm.

In the same period, nine members of the hospital obstetrics team (a gynecologist-obstetrician, four midwives and four nursery assistants) were trained in sign language. This training consisted of one week of classes per year for four consecutive years, with certification of their level in French Sign Language (FSL) at the end of each week.

All pregnant women known to be signing presenting during the study period were identified from the archives of the DPRCU. Their computerized obstetrical records, computerized calendar of appointments and paper patient records were used to analyze their management within the department of Obstetrics and Gynecology. The confidentiality of medical records was assured by assigning a random number to each patient included. The primary criteria was the rate of appropriate adapted care for all scheduled consultations (obstetric consultations, ultrasound scans, anesthesia consultation and post-natal visits) by a suitable member of staff, i.e., either by a member of the O and G team trained in sign language (with or without an interpreter), or an untrained staff member accompanied by an interpreter. If the presence of the interpreter was not recorded in the computer file, paper medical records or in the computer calendar, the interpreter was considered not to have been present. The secondary endpoints were the following:

- presence of an interpreter at scheduled consultations and depending on the member of staff following the pregnancy (trained in sign language or untrained)
- reference in the medical record of the patient’s hearing deficiency as well as the telephone number of the secretary of the DPRCU
- proportion of patients who benefited from support by a trained professional during their stay in the maternity ward
- rate of the “Deaf patient” protocol for calling an interpreter during the stay in the delivery room or in the case of hospitalization during pregnancy or postpartum
- type of staff present during interventions by interpreters during maternity stays (midwife, nursery assistant, pediatrician)
- number of emergency consultations in the presence of an interpreter or by a trained member of the O and G team.

Processing and data analysis were performed using StatView software (StateView for Windows, SAS Institute, Inc., Cary, NC, USA).

## Results

Twenty-two patients were included in the study. The characteristics of the population at baseline are shown in Table 1. The scheduled consultations during pregnancy and in the postpartum period are detailed in Table 2. For scheduled consultations, 83.1% of obstetric consultations, 43.4% of ultrasound examinations, and 63.6% of anesthesia consultations and post natal visits were carried out by or with suitable staff (a qualified French sign language interpreter and/ or O and G member trained in sign language). An O and G member

trained in sign language, midwife or doctor, followed 72.7% of Deaf pregnant women. For these patients, the percentage of consultations conducted with an interpreter was 65.3% of obstetric consultations, 35.7% of ultrasound examinations, 68.7% of anesthesia consultations and 50% of postnatal visits. As for the patients cared for by O and G personnel untrained in sign language, 48.6% of obstetric consultations, 65% of ultrasound scans, 50% of anesthesia consultations and no postnatal visit were conducted with an interpreter present. Status of deaf signing patient and the phone number of the secretary of the DPRCU were recorded in the medical records of 87.5% of patients seen by a FSL trained O and G member, and only of 33.3% of patients were followed by an untrained O and G member.

The patients in the study were cared by FSL trained personnel for 64.7% of scheduled obstetric consultations, 22.7% of emergency room visits (18.2% during the day, 27.3% on weekends and at night), 22.7% while in the delivery room, 54.5% of maternity stays and 60% of postnatal visits. The implementation rate of the “Deaf patient” protocol for calling an interpreter while the woman was in the delivery room and in the maternity ward is shown in Table 3. Adapted care for emergency consultations during pregnancy and postpartum is detailed in Table 4.

## Discussion

In our department, care has been taken to account for the disability in 83.1% of obstetric consultations, 63.6% of anesthesia consultations

Characteristics	n=22
Age (years) <i>m, sd</i>	31.8 ± 5.6
Employment	
- Working	n=11 (50%)
- Not working	n=11 (50%)
Living in a couple	n=22 (100%)
Nulliparous	n=15 (68.2%)
Physiological pregnancy	n=15 (68.2%)
Mode of delivery	
- eutocic	n=11 (50%)
- instrumented vaginal delivery	n=7 (31.8%)
- caesarean	n=4 (18.2%)

**Table 1:** Characteristics of the study population.

Type of scheduled consultation during pregnancy	N=22
Number of obstetric consultations, <i>m (sd)</i>	6.2 (1.7)
Number of adapted obstetric consultations, <i>m (sd)</i>	5.1(2)
Number of ultrasound examinations, <i>m (sd)</i>	3.5 (0.9)
Number of adapted ultrasound examinations, <i>m (sd)</i>	1.7 (0.9)
Anesthesia consultation, %	100
Adapted anesthesia consultation, %	63.6
Postnatal visits, %	75
Adapted postnatal visits, %	65

**Table 2:** Description of scheduled consultations during pregnancy and post-partum.

Use of the “Deaf patient” protocol	n=22
<b>In the delivery room</b>	
Call to the DPRCU	40%
Intervention of an interpreter	33.3%
<b>During maternity ward stay</b>	
Number of calls to the DPRCU per Deaf patient <i>m, sd</i>	2.1 ± 1.2
Number of interventions by an interpreter per Deaf patient <i>m, sd</i>	2 ± 1
% patients with at least one intervention by an interpreter	100%
<b>Staff present at the same time as the interpreter:</b>	
Midwife	90.9%
Nursery Assistant	86.3%
Pediatrician	36.3%

**Table 3:** Use of the “Deaf patient” protocol to request an interpreter in the maternity ward.

Emergency Consultations	Total n=22	Daytime (during working hours of interpreters) n=11	Nights, week-ends and public holidays n=11
Interpreter present	18.2%	36.4%	0 %
Performed by FSL trained medical staff	22.7%	18.1%	27.3%
Deaf Adapted Consultations	40.9%	54.5%	27.3%

**Table 4:** Adapted Care of Deaf patients in emergency consultations during pregnancy and postpartum.

and 43.4% of ultrasound examinations, which appears quite acceptable. We also investigated the level of adapted care given to signing Deaf patients by FSL trained staff according to the different areas of clinical obstetrics and gynecology. The goal was to see if a small number of trained caregivers allowed us to provide appropriately adapted care in the majority of cases, especially when interpreters were not available. There was a wide disparity between the different sectors of clinical obstetrics, mainly due to whether the presence of the Deaf patient was planned in advance or not, the length of stay for unscheduled visits (emergency consultations, admissions due to high-risk pregnancies, hospital stays for childbirth) and the quality of traceability of information. It is likely that for stays in maternity wards the results are underestimated by our method of data collection as hospital records are almost exclusively hand-written by the doctor or midwife in charge of the patient and his/her name is sometimes illegible or replaced by a signature, giving rise to missing data. The highest rate of adapted care was for scheduled consultations, but it could still be improved. Indeed, there are sometimes no more appointments available with a doctor/midwife trained in sign language. This problem could easily be resolved by anticipating and reserving appointments from early-on in pregnancy and by giving more information to signing pregnant Deaf women about the availability of adapted care at the maternity clinic at the Grenoble hospital.

Concerning the rates of adapted care in the various O and G emergency services (delivery room and emergency consultations), we found a relatively low rate (about 30% to 40%) of adapted care (performed by a FSL trained doctor or midwife, or in the presence of an interpreter). For daytime emergencies, only 36.4% of consultations were conducted with an interpreter present, who often had busy schedules and could rarely be freed to assist in an emergency. These low rates of care adapted to the disability of Deaf patients in emergency situations, observed both in the day and at night, highlight the fact that having only nine O and G members of staff trained in sign language is insufficient to provide 24 h/24 h care adapted to the Deaf. This suggests that an interpreter on-call 24 h/24 h would be of great benefit to Deaf patients.

As for the intervention of interpreters during maternity stays; all patients received at least one visit by the interpreter during their stay, the DPRCU having been alerted on average twice with often two visits by the interpreter. During these interventions, the midwife and nursery assistant were present with the interpreter in 9 out of 10 cases. It is legitimate to think that given the difficulties of communication with Deaf patients faced over several days, staff use the “Deaf patient” protocol to solve these problems. However, when they only occasionally see the patient (such as a pediatrician for example) the use of an interpreter is uncommon (36.3% of cases). To optimize care, a meeting between the maternity ward pediatrician and the interpreter should be arranged at the beginning of the patients stay in the maternity ward. Indeed it appears important that parents understand the explanations given by the pediatrician and can ask any questions during the first visit, such as screening for hearing disorders and the hearing devices available for infants.

Due to our study being retrospective and only based on information recorded in the patients’ medical records, it is likely that the results are underestimated. We found that data were complete for consultations carried out by the staff trained in FSL, as the list of these doctors and midwives, as well as who conducted the consultation were available and recorded. However, the presence of an interpreter was not systematically noted particularly when other members of O and G were consulting. The adaptation of care during ultrasound examinations appeared only in the computerized agenda where the secretary noted the agreement of the DPRCU to supply an interpreter) and may also have led to underestimation of results. There appear to be gaps in the traceability of whether an interpreter was present or not. In fact, the presence of the interpreter during medical care should be systematically recorded in the patients’ records by the doctor or midwife because it is a prerequisite for good communication and shows compliance with the legal duty of caregivers to accommodate for deafness [7].

The goal of 100% adapted care for scheduled consultations could be achieved by better planning of consultations from early-on in pregnancy (including the anesthesia and ultrasound visits) to ensure that in addition to being followed by a doctor/midwife trained in FSL, an interpreter can be systematically present. Extending FSL training to include other medical specialists (anesthetists, sonographers, and pediatricians) could also help optimize care. In fact, this study examined differences in the use of interpreters for scheduled consultations, whether or not the caregiver was trained in sign language. In general, interpreters were used more frequently by FSL trained staff than by caregivers who had no FSL training, which shows that the former were aware of the difficulties in communication and understanding encountered by Deaf patients, and conscious of their own linguistic limitations. In addition, FSL trained professionals more frequently documented deafness and the phone number of the DPRCU so that their colleagues could call an interpreter.

For ultrasound examinations, less proportion of interpreters could be due to a high proportion of missing data and lack of power (insufficient cases for meaningful statistical analysis). Thus, the availability of an interpreter service in itself does not guarantee that it is used; however this situation appears to improve when the medical staff has some training in sign language.

The issue of access to care for people with disabilities has gained in impetus with the 2005 law on equal rights and opportunities, participation and citizenship for disabled people [6] and the revision of the hospitalized patient’s charter. The Charter states in its first article: “The hospital service is available to all and [...] is designed for the handicapped” and in its third article: “The information given to the patient must be accessible, understandable and fair”. In addition, the 2005-2007 perinatal plan [8] states that “during the whole perinatal period, for women with disabilities [...] particular attention must be given [...], in the areas where they have in difficulty because of their handicap”. The law therefore requires that hospital services are “adapted” to handicaps. In the context of deafness, “the adaptation” should be in the field of communication with the deaf patient. Several

studies [9-12] show that communication that takes account of deafness provides improved care for the deaf and increases their adherence to it and therefore improves patient satisfaction. In the light of our results, that are quite encouraging, it seems important to raise the awareness of the obstetrics team to the use of the “Deaf patient” protocol and to the importance of having an interpreter present for the care of signing Deaf patients so as to offer effective adapted care.

Furthermore, a survey of satisfaction among these patients, provided it is done in sign language, may bring to light additional factors.

## Conclusion

In 2007, the introduction in the obstetrics and gynecology clinic of Grenoble University Hospital of two methods of tailoring care to the deaf through the use of qualified language interpreters, and the initiation of training in sign language for a group of O and G staff, opened the way to more accessible care for pregnant signing Deaf patients. Nevertheless, it is essential to continue to develop this initiative so as to achieve optimal management of pregnancy, childbirth and postpartum that is totally adapted to the Deaf.

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