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Delivery care during the SARS-CoV-2 epidemic in Italy: an instant survey.

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Dear Editor,

on February 20, 2020, the first case of severe pneumonia due to SARS-CoV-2 was diagnosed in Italy. Since then, the cases of infection identified in Italy rapidly increased.

Following the epidemic breakthrough, the Health Authorities developed recommendation and clinical guidance for pregnancy and delivery care in positive and negative SARS-CoV-2 women during the epidemic period (1,2).

These guidelines generally foresaw: -adopting of protocols for the triage of pregnant and delivering women to identify women with suspected SARS-CoV-2 infection; - identification of regional designated COVID-19 maternity hospitals (hub hospital) to offer adequate assistance and epidemiological surveillance to symptomatic infected women. However, all hospitals (spoke hospitals) had to be able to organize a protected vaginal or cesarean delivery. This means appropriate personal protective equipment (PPE) and dedicated labor and delivery or operating room had to be available.

To take a picture of pregnancy and delivery care in Italy during the COVID 19 epidemic and the procedures for protecting pregnant women and health care providers (HCPs), AOGOI (Associazione Ostetricici e Ginecologi Ospedalieri Italiani, the main Italian gynecological association) has conducted an instant survey.

Data were collected through an online anonymous and self-filled questionnaire.
Italian registered gynecologists associated to AOGOI were asked to participate through an announcement published on the website and the weekly newsletter of the AOGOI.
The questionnaire was available on line between March 20th-April 7th, 2020. Data were collected using the SurveyMonkey platform.

A total of 332 questionnaires were filled out. Table 1 shows the main results.

247 responders (74.4, 95% Confidence Interval (CI): 69.3-79.0) reported that written protocols on the diagnostic and therapeutic procedures for pregnant women with SARS-CoV-2 suspected or documented infection were available in their centers. The gynecologists reported that "hub"
hospitals were defined in most regions within 3 weeks from the first Italian identified case of COVID 19 (between 22th February and e 26th March, in most cases during the period 1st-16th March, data not show in table).

With regard to the availability of PPE, 173 responders (52.1, 95%CI: 46.6-57.6) reported adequate availability of only surgical masks. Respirator N95 or FFP2 standard or equivalent, gown, gloves, eye protection, apron were reported adequately available by 119 gynecologists (35.8, 95%CI: 30.7-41.3).

In particular, 78,0% (259 responders, 95%CI 73.2-82.4) of gynecologists considered inadequate the availability of PPE in the delivery and operating rooms, (data not shown). A total of 250 gynecologists (75.3%, 95%CI: 70.3-79.8) reported to be adequately instructed on when and how use different PPEs.

Finally we asked about screening procedures for SARS-CoV-2 infection among health care providers (HCP) with nose/throat rRT-PCR test. Only 10 gynecologists (3.1%) reported that all HCPs were tested. Most of gynecologists reported that no HCP was tested.

In conclusion, the general results of this instant survey show that adequate procedures were quickly available in Italy for pregnancy and delivery care during the SARS-CoV-2 infection epidemic. Most delivery hospitals have developed specific procedures and Italian regions have identified hub centers. However, PPE were not adequately available in most of the delivery rooms and HCPs were not screened for infection.

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References

1.Ferrazzi EM, Frigerio L, Cetin I, Vergani P, Spinillo A, Prefumo F, Pellegrini E, Gargantini G. COVID- 19 Obstetrics Task Force, Lombardy, Italy: executive management summary and short report of outcome. Int. J. Gynaecol. Obstet. (2020) doi:10.1002/ijgo.13162

2.Commissione consultiva tecnico-scientifica sul percorso nascita. Nuovo coronavirus SARS-CoV-2 Indicazioni per le professioniste e i professionisti del percorso nascita della regione Emilia- Romagna. (2020) https://www.sigo.it/wp-content/uploads/2020/03/emilia-romagna-allegato- indicazioni-covid19.pdf (access 22th march 2020)

Table 1. Distribution of answers to the questionnaire.

	No. (332)	% (95%CI)
Written protocol for triage/diagnosis/treatment of women with suspected or confirmed SARS-CoV-2 infection (Yes)	247	74.4(69.3-79.0)
Place of outpatient obstetric visit/ultrasound examination		
Hospital	*232*	*69.9(64.6-74.8)*
Hospital dedicated outpatient services	*44*	*13,3(9.8-17.4)*
Outpatient services	*56*	*16,9(13.0-21.3)*
Adequate availability of PPE		
Surgical mask (Yes)	*173*	*52.1(46.6-57.6)*
All PPE (respirator N95 or FFP2 standard or equivalent, gown, gloves, eye protection, apron)	*119*	*35.8(30.7-41.3)*
Adequate advice on when and how use different PPE (Yes)	250	75.3(70.3-79.8)
HCP screening for SARS-CoV-2 infection		
None	*152*	*45.8(40.3-51.3)*
Symptoms or contact with COVID19 patients or both	*160*	*48.2(42.7-53.7)*
All HCPs	*10*	*3.0(1.5-5.5)*
On request of the HCP	*10*	*3.0(1.5-5.5)*

PPE= personal protective equipment HCP= health care provider

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