Original Investigations

Telephone follow-up in urogynecology in the era of COVID-19 pandemic
Frigerio et al. Telephone follow-up during COVID-19 pandemic

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Received: 27 July, 2020 Accepted: 01 November, 2020

Abstract
Objective: In the era of COVID-19 pandemic deferable accesses, including non-urgent outpatient visits, have been suspended. Therefore, we improved our practice in consideration of COVID-19 lockdown, by converting non-urgent control visits to telephone follow-up. We aimed to evaluate patients’ satisfaction for this alternative approach.

Material and Methods: Telephone interviews were conducted using a validated questionnaire to investigate pelvic floor symptoms. Patients were also asked if they have other symptoms / disorders, to identify patients who may need urgent hospital evaluation. At the end of the phone call, patients were asked to score their satisfaction with the telephone follow-up in a range from 0 (minimum) to 10 (maximum) with the following 3 questions: 1) “was the telephone interview useful to check your state of health?”; 2) “was the telephone interview an adequate healthcare tool in consideration of COVID-19 outbreak?”; 3) “could the telephone interview replace the conventional visit?”.

Results: Fifty-three patients were evaluated. All patients showed great satisfaction with telephone follow-up (Q1=9.7) and considered telephone interviews as an adequate tool in consideration of COVID-19 lockdown (Q2=9.8). Moreover most of them felt that this approach can even replace conventional check-up (Q3=7.0).

Conclusion: This simple experience showed that phone interviews with validated questionnaires are appreciated and effective to safely perform follow-up of urogynecologic patients.

Keywords: Telemedicine; Prolapse surgery; Anti-incontinence surgery; COVID-19; Female pelvic medicine

Introduction
Italy is currently one of the COVID-19 most severely affected countries in the World and second in Europe. Since hospitals may act as virus carriers - through infected patients and asymptomatic health workers - deferable accesses, including non-urgent clinical activities, have been suspended. At the same time, alternative solutions have been developed to continue providing
healthcare for the population. These include mobile clinics and home-based care, thus reducing access to hospitals, gathering and consumption of protective equipment. One solution is represented by telephone follow-up that allows patients to stay in the domestic environment. This can be suitable for health-care of patients, as previous reports showed to be feasible and associated with patients’ satisfaction for urological diseases. In female pelvic reconstructive surgery, telephone interview has been proposed for midurethral tapes follow-up, as a screening tool to identify patients who need conventional clinical consultation. Recently, the PHONE Study compared telephonic and clinic follow-up results after pelvic organ prolapse and anti-incontinence surgery in female patients and demonstrated the feasibility and reliability of the telemedical procedure. In the era of COVID-19 pandemic, telephone follow-up may be even more convenient to limit the contagion. Therefore, we decided to perform telemedicine using a symptom related questionnaire for patients with non-urgent outpatient visits suspended due to COVID-19 pandemic. We hypothesized that patients would appreciate this alternative approach to maintain care continuity. Specifically, we aimed to evaluate patients’ satisfaction for telephone follow-up in terms of appropriateness and quality of healthcare service provided.

**Material and Methods**

This experience was conducted in two University Hospitals in Lombardy, the Italian region most affected by COVID-19. Patients whose pelvic organ prolapse or anti incontinence postoperative clinical consultation was suspended due to COVID-19 lockdown - scheduled from March 16, 2020 to April 30, 2020 - were involved. Telephone interviews were conducted through a modified version of the questionnaire validated by Balzarro et al, investigating prolapse symptoms, urinary incontinence, sexual dysfunction, voiding difficulties, lower urinary tract symptoms and bowel dysfunction (Table 1). Patients were also asked if they have other symptoms / disorders, to identify patients who may need urgent hospital evaluation. At the end of the phone call, patients were asked to score their satisfaction with the telephone follow-up in a range from 0 (minimum) to 10 (maximum) with the following 3 questions: 1) “was the telephone interview useful to check your state of health?”; 2) “was the telephone interview an adequate healthcare tool in consideration of COVID-19 outbreak?”; 3) “could the telephone interview replace the conventional visit?”.

**Statistical analysis**

Data obtained during the telephone follow-up assessment were statistically analyzed with JMP 9.0 (SAS, Cary, US). Continuous data are presented as mean ± standard deviation, while non-continuous data as number (percentage). This study was considered exempt from IRB approval as it only involved standard clinical practices.

**Results**

In total 53 patients answered telephone calls. Patients' age was 65.6 ± 9.3 years. Surgical technique performed and duration of follow-up resulted very heterogeneous since it involved the activity of two different Institutions. Globally, prolapse repair surgery represented the main indication for follow-up (79.2%). All patients showed great satisfaction with telephone follow-up. Scores resulted 9.7 ± 0.7 for Question 1, 9.8 ± 0.6 for Question 2 and 7.0 ± 2.1 for Question 3 (Figure 1). We also collected positive feedback about the supporting and reassuring effect of our calls. None of the patients referred symptoms that required and urgent conventional evaluation.

**Discussion**

This study was aimed to evaluate feasibility and compliance for telephone follow-up for patients in which non-urgent conventional post operative check-up was suspended due to COVID-19
pandemic. All patients showed great satisfaction with telephone follow-up and considered telephone interviews as an adequate tool in consideration of COVID-19 lockdown. Moreover most of them felt that this approach can even replace conventional check-up. We also collected positive feedback about the supporting and reassuring effect of our calls.

The COVID-19 pandemic has significantly affected the way providers care for patients, and female pelvic medicine makes no exception. Despite no clear guidelines on the use of telemedicine in FPMRS, recently an effort was made to provide guidance regarding management of common outpatient urogynecology scenarios during the pandemic. While surgeons usually feel compelled to check postoperative patients, there is growing evidence that patient stratification based on perioperative risk and postoperative risk may decrease the total number of conventional visits to enhance physical distancing. Recently, a pre-COVID-19 pandemic RCT showed that telephone follow-up after pelvic floor surgery results in noninferior patient satisfaction, without differences in clinical outcomes or adverse events.

Our experience confirmed that telemedical follow-up may allow healthcare continuity and may be particularly appropriate in the era of COVID-19 pandemic. Phone interviews with validated questionnaires resulted as appreciated and effective tools to safely perform follow-up of patients with functional disorders. This approach involves several advantages. The first is the “forward triage”, or - in other words - the capability to sort patients with urgent need for care from those who can safely postpone the conventional clinical examination. In this way we were able to reduce community exposure for people with functional urologic disorders, which may potentially be looking for alternative health providers (e.g., improper emergency room accesses or general practitioners consultations). This is extremely important, since these patients are often elder and frail, and more prone to develop severe and life-threatening complications in case of COVID-19 infection. Moreover, for functional disorders, telephone follow-up can often be adequate to address symptoms referred by patients, and set up an initial diagnostic or therapeutic path. At the same time, this procedure, acting as a screening tool, avoids neglecting serious conditions that require medical evaluation. One more aspect of the telephone follow-up is the capability to provide not only health but even social support for patients living pandemic in loneliness with anxiety and abandonment fear. We realized that these are widespread feelings among patients who are compelled to stay home for days or weeks due to COVID-19 lockdown. The almost total degree of satisfaction expressed by our patients can probably be explained by the human aspect of the conversation, besides clinical contents, that was particularly appreciated. Moreover, this approach reduces the consumption of protective equipment and clinicians’ exposure to contagion.

This is particularly relevant considering that a massive health care workers quarantine might impact the capacity of Health Institutions to face the current COVID-19 emergency. Lastly, in case of need, this telehealth approach can be conducted by quarantined health workers, so with both patient and clinician at home, greatly optimizing resources and permitting uninterrupted care of established patients.

**Conclusion**

Although this was an initial experience, we do think that the concept of telephone follow-up using validated clinical tools, such as checklists and questionnaires, could potentially be widespread to successfully manage limitations arising with COVID-19 pandemic. This is an efficient and low-resource solution that guarantees vulnerable patients’ care while protecting population and health providers.
Acknowledgements
None

Conflicts of interest
None

Ethics statement
Since the study only involved standard clinical tools, it was considered exempt by local ethics committee approval. The study was conducted in accordance with the declaration of Helsinki.

References
### Table 1. Question checklist

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>Sometimes</th>
<th>Yes</th>
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<tbody>
<tr>
<td>1 Do you have sensation of bulging/protrusion from vagina?</td>
<td></td>
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<tr>
<td>2 If bulging/protrusion is present does it bother you?</td>
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<tr>
<td>3 Do you experience difficult emptying the bladder?</td>
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<td>4 Have you resumed your sexual life?</td>
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<td>5 Do you have experienced dyspareunia?</td>
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<td>6 Do you experience urinary incontinence?</td>
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<tr>
<td>7 Is your urinary incontinence in connection to physical efforts like laughing, coughing, sneezing, exercising or lifting something heavy?</td>
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<tr>
<td>8 Is your urinary incontinence related to sudden, intense urge to urinate followed by an involuntary loss of urine?</td>
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<tr>
<td>9 Do you need to urinate often?</td>
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<td>10 Do you need to urinate during the nighttime?</td>
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<tr>
<td>11 Have you had bladder infection since last medical control?</td>
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<tr>
<td>12 Do you experience difficult emptying the bowel?</td>
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<td></td>
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<tr>
<td>Other to notify:</td>
<td></td>
<td></td>
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</tbody>
</table>

**Figure 1.** Satisfaction with the telephone follow-up in a range from 0 (minimum) to 10 (maximum) with the following 3 questions: Q1) “was the telephone interview useful to check your state of health?”; Q2) “was the telephone interview an adequate healthcare tool in consideration of COVID-19 outbreak?”; Q3) “could the telephone interview replace the conventional visit?”