

SARS-CoV-2 Infection Rate in Patients With Cancer and Health Care Workers in a Chemoradiotherapy Unit During the Pandemic: A Prospective Cohort in Mexico

Monica Isabel Meneses-Medina, MD¹; Jorge Humberto Hernandez-Felix, MD^{1,2}; Luis Guillermo Anaya-Sánchez, MD^{1,3}; Ana Karen Valenzuela-Vidales, MD¹; Vanessa Rosas-Camargo, MD¹; Edgar Omar Martos-Armendariz, MD^{1,4}; Lucero Itzel Torres-Valdiviezo, MD^{1,3}; Alberto Cedro-Tanda, MSc, PhD⁵; Alejandro Noguez-Ramos, MD¹; Luis Alonso Herrera-Montalvo, PhD^{5,6}; Alfredo Hidalgo-Miranda, PhD⁵; Raymundo David Valdez-Echeverria, MD, MSc¹; Arturo Galindo-Fraga, MD, MSc⁷; and Fidel David Huitzil-Meléndez, MD, MSc¹

abstract

PURPOSE Cancer treatment during the COVID-19 pandemic represents a challenge. Hospital visits to receive treatment and interaction with health care workers (HCW) represent potential contagious events. We aimed to determine SARS-CoV-2 infection rate among patients with cancer and HCW of a chemoradiotherapy unit localized in a center designated as a COVID-19 priority facility in Mexico City. We also determined the diagnostic performance of a clinical questionnaire (CQ) as a screening tool and anti-SARS-CoV-2 antibody seroconversion rate.

METHODS HCW and patients with solid tumors attending the chemoradiotherapy unit signed informed consent. To determine SARS-CoV-2 infection rate prospectively, a nasopharyngeal swab for SARS-CoV-2 real-time quantitative reverse transcriptase polymerase chain reaction (RT-qPCR) was performed every 2 weeks in asymptomatics. An electronic CQ interrogating COVID-19-related symptoms was sent daily. Anti-SARS-CoV-2 immunoglobulin G (IgG) antibodies were measured at baseline and at the end of the study period.

RESULTS From June to September 2020, we included 130 asymptomatic participants, 44.6% HCW and 55.4% patients with cancer. During a median follow-up of 85 days, 634 nasopharyngeal swabs were performed. Average SARS-CoV-2 monthly incidence was 4.6% (3.15%-7.47%), and cumulative infection rate was 13.8% (18 of 130). Cases were mostly asymptomatic (66%), and no hospitalizations or deaths were recorded. The CQ as a screening tool provided a sensitivity of 27.7%, a positive predictive value of 26.3%, and a positive likelihood ratio of 12. SARS-CoV-2 IgG seroconversion rate was 27.7% among those with a positive RT-PCR.

CONCLUSION Patients with cancer on treatment can have uncomplicated COVID-19 outcomes. Biweekly RT-qPCR testing detects asymptomatic infections, prevents transmission, and should be implemented in units to increase patient safety. CQ increase RT-qPCR diagnostic yield and may prioritize testing in resource-deprived settings. Post-infection IgG seroconversion is unreliable.

JCO Global Oncol 7:1639-1646. © 2021 by American Society of Clinical Oncology

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ASSOCIATED CONTENT

Data Supplement

Author affiliations and support information (if applicable) appear at the end of this article.

Accepted on October 27, 2021 and published at ascopubs.org/journal/go on December 13, 2021; DOI <https://doi.org/10.1200/GO.21.00207>

INTRODUCTION

SARS-CoV-2 is a novel coronavirus identified in December 2019 in Wuhan, China.¹ Because of its high transmissibility and lethality, social life and health systems worldwide have been transformed to mitigate transmission and cope with the high demand for hospital care imposed by severe cases.

Mexico City is the place in the country where the highest number of cases has been registered,² and the Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán (INCMNSZ) was designated a COVID-19 priority care hospital on March 16, 2020.

This means that only patients with COVID-19 were admitted as inpatients. Nevertheless, cancer care was allowed to continue for outpatients and cancer treatment continued in the chemoradiotherapy unit.

Patients and physicians express concern about the safety of continued cancer treatment in chemotherapy units during the pandemic.³⁻⁵ Patients with cancer are perceived at high risk of SARS-CoV-2 infection and poor outcomes from the disease.⁶⁻⁸ Health care workers (HCW) are also at risk of infection inside^{9,10} and outside the hospital, and this interaction could result in an outbreak of COVID-19 cases in the chemoradiotherapy unit. Hence, determination of the

CONTEXT

Key Objective

Is it safe for patients with cancer to attend the chemoradiotherapy unit for oncologic treatment during the COVID-19 pandemic?

Knowledge Generated

We prospectively monitored patients with cancer and health care workers with daily clinical questionnaires and biweekly real-time quantitative reverse transcriptase polymerase chain reaction (RT-qPCR) during a 4-month period in a chemoradiotherapy unit in Mexico City. We observed an average 4.6% monthly SARS-CoV-2 infection rate and no related mortality. Most cases were asymptomatic. Biweekly RT-qPCR detects asymptomatic infections and prevents viral transmission.

Relevance

Chemoradiotherapy units should consider biweekly SARS-CoV-2 RT-qPCR testing in asymptomatic patients and health care workers to increase safety.

infection rate within the unit may inform patients and physicians about the safety of continued treatment.

COVID-19 symptomatic spectrum is wide, and operational definitions for suspected cases can aid epidemiologic surveillance during a pandemic.¹¹ Clinical questionnaires (CQ) interrogating COVID-19–related symptoms are simple, accessible, and inexpensive tools. CQ can be used for monitoring patients and HCW, and could help to prioritize molecular testing.

Finally, after SARS-CoV-2 infection, specific antibody responses may depend on severity of infection and time of testing. For patients with cancer, other variables such as immunosuppression attributed to cancer itself or treatment may contribute.¹²

Therefore, this study was conducted with the objective to determine the SARS-CoV-2 infection rate in the population of patients and HCW attending the outpatient chemoradiotherapy unit during the first wave of the COVID-19 pandemic in Mexico City. Secondary end points were to evaluate the diagnostic performance of the CQ as a screening tool for COVID-19 and to evaluate the presence of immunoglobulin G (IgG) antibodies against SARS-CoV-2 at baseline and at the end of follow-up.

METHODS

This was a prospective, longitudinal cohort study conducted at the INCMNSZ during the first wave of COVID-19 in Mexico. The institution is a public third-level academic referral center for adult patients. The ambulatory chemotherapy and radiotherapy unit is located in a separate building, and the most common solid malignancies treated include gastrointestinal, genitourinary, and breast cancer. Lung cancer is usually treated at two adjacent institutions.

The study protocol was approved by the local ethics committee and was registered in clinical trials with the number [NCT04567979](https://clinicaltrials.gov/ct2/show/study/NCT04567979). Recruitment was active from June 12, 2020, to August 14, 2020, but follow-up continued until September 30, 2020. Follow-up ended when participants

tested positive for SARS-CoV-2, patients finished their oncologic treatment, or HCW were relocated to a different work area. Inclusion criteria were (1) patients age 18 years or older, with a diagnosis of a solid malignant neoplasm under active oncologic treatment in the chemotherapy and radiotherapy unit, and (2) HCW of the unit including physicians, nurses, technicians, and administrative staff. Patients with hematologic malignancies were excluded. All participants signed informed consent.

Infection prevention measures followed at the chemoradiotherapy unit included a sanitary filter to check for symptoms or fever, mandatory facemasks, restricted entrance to the patient and one companion, and face shields for HCW in direct contact with patients. The unit schedule avoided crowding of patients, and seats allowed a minimum of 1.5 m between patients. Treating physicians were aware of ASCO recommendations regarding adjustments to chemotherapy schedules to minimize patient visits to the chemoradiotherapy unit and endorsed when possible.

Procedures

Once included, participants received standardized information to prevent COVID-19 infection. Interventions included a nasopharyngeal swab (NPS) every 2 weeks to detect SARS-CoV-2 with real-time quantification reverse transcriptase polymerase chain reaction (RT-qPCR)¹³ and a CQ to screen for symptoms or contact that was collected daily electronically or by telephone.

Patients and HCW who reported respiratory symptoms on the CQ received a call from physicians involved in the study to ask about the symptoms. A case was considered suspicious for COVID-19 if fulfilled the standardized operational definition: fever, headache, or cough in the past 7 days plus one of the following: dyspnea, pharyngodynia, rhinorrhea, myalgia, arthralgia, conjunctivitis, or chest pain. Suspected cases were sent to medical evaluation and RT-qPCR testing for SARS-CoV-2. Both patients and HCW were instructed to quarantine pending directions based on

RT-qPCR results. If result was negative, HCW returned to work after 72 hours without symptoms. Patients resumed treatment according to treating physician after symptom resolution. The policy for positive RT-qPCR applied regardless of symptoms. For patients, the treating physician was notified and oncologic treatment was stopped for 14 days or until the resolution of COVID-19 disease. For HCW, they returned to work after 10 days of isolation and/or 72 hours without fever.

RT-qPCR Test for SARS-CoV-2

RT-qPCR tests to detect SARS-CoV-2 were performed as described elsewhere¹³ on Thermo Fisher ABI QuantStudio 5 or QuantStudio 7 Real-Time Thermal Cyclers. Samples were classified as positive for SARS-CoV-2 when both the N1 and N2 primer and probe sets were detected with a cycle threshold (Ct) value of < 40. Viral load was considered low when Ct values were > 30, moderate for Ct values 21-30, and high for Ct values < 20.

CQ

The CQ (found as Data Supplement) was conducted in an online survey application. The link to access the CQ was sent daily in the morning as a text message to the cell phones of the participants. If the participant did not have access to internet, the CQ was collected by telephone call. The first section asked about the presence of symptoms or contact with patients with COVID-19; in case of a negative answer, the CQ was terminated for that day. A second section determined if symptoms met the operational definition of a suspected COVID-19 case, the need for medical attention, and details of COVID-19 contact.

COVID-19 Antibody Test

COVID-19 antibody tests were performed on an Abbott Architect i2000SR (Abbott Park, IL) automated 53 analyzers using the SARS-CoV-2 IgG assay designed to detect antibodies to the nucleocapsid protein of SARS-CoV-2, following manufacturer instructions. We measured antibodies at baseline and at the end of the study period follow-up.¹⁴

Outcome Measures

The monthly incidence rate of SARS-CoV-2 infection was calculated by dividing the new cases detected by RT-qPCR testing per month, regardless of symptoms, by the population followed during that same month. Cumulative incidence of SARS-CoV-2 infections was calculated as the number of participants who obtained a positive RT-qPCR test divided by the total number of participants included in the complete 4-month follow-up period.

To calculate the performance of the CQ as a screening tool for COVID-19, we used a 2 × 2 table that categorized RT-qPCR test results as positive or negative and CQ results as positive or negative for the operational definition of a suspect case. A positive CQ was defined as having reported

at least one day symptoms that met the operational definition of COVID-19 suspected case at any time during the period between two NPS (typically 15 days). Consecutive days within the same period counted only once.

SARS-CoV-2 IgG seroconversion rate was calculated by dividing the number of participants with a positive follow-up IgG test after a positive RT-qPCR test by the total number of participants with positive SARS-CoV-2 RT-qPCR test.

Statistical Analysis

Statistical analyses were performed with IBM SPSS version 24. Absolute and relative frequencies were determined for baseline characteristics as well as for follow-up variables and participant outcomes. For continuous variables with a normal distribution, the mean and standard deviation were used and for free distribution variables, the median and interquartile range.

Differences between groups were analyzed using Mann-Whitney U test for continuous measures. For qualitative variables, chi-square test or Fisher exact test was applied.

We calculated sensitivity (SN), specificity (SP), positive predictive value (PPV), negative predictive value (NPV), and likelihood ratio (LR) of a positive test and a negative test with their 95% CIs.

RESULTS

From June 12, 2020, to August 14, 2020, 130 asymptomatic participants signed informed consent: 72 (55.4%) patients and 58 (44.6%) HCW. Demographics and clinical characteristics are shown in [Table 1](#). In the cohort, 54.6% participants were female and 45.3% were male. Median age was 48 years (interquartile range [IQR], 36-61.5 years). Compared with HCW, patients were older (median age 61 v 36 years for patients and HCW, respectively, $P < .001$) and more frequently male (59.7% v 27.6% for patients and HCW, respectively, $P < .001$). For patients, 50% ($n = 36$) had a gastrointestinal cancer and most of them, 69.5% ($n = 50$), were stage IV. Median follow-up for the cohort was 85 days (IQR, 48-103 days). The number of subjects per month varied from 83 to 107. [Figure 1](#) shows the composition of the cohort according to recruitment month through time.

SARS-CoV-2 Infection Rate

During the follow-up period, 634 NPS for SARS-CoV-2 RT-qPCR tests were performed with a median of 5 (IQR 3-7) per participant. From total, 2.84% tests ($n = 18$, six HCW and 12 patients) were positive for SARS-CoV-2.

The monthly infection rate ([Fig 1](#)) was 4.7% in June (two patients and two HCW), 7.47% in July (six patients and two HCW), 3.15% in August (three patients), and 3.5% in September (one patient and two HCW). The cumulative incidence was 13.5% ($n = 18$ of 130).

TABLE 1. Demographic Characteristics, SARS-CoV-2 RT-qPCR Tests, Daily Clinical Questionnaires and Anti-SARS-CoV-2 IgG Antibodies' Determination Among Patients and Health Care Workers of the Chemoradiotherapy Unit During Follow-Up

Characteristic	Total, N = 130 (%)	Patients, n = 72, No. (%)	HCW, n = 58, No. (%)	P ^a
Age, years				
Median (IQR)	48 (36-61.5)	61 (54.2-67.7)	36 (30.7-42.5)	< .001
Sex				
Male	59 (45.4)	43 (59.7)	16 (27.6)	< .001
Female	71 (54.6)	29 (40.3)	42 (72.4)	
Median follow-up, days (IQR)	85 (48-103)	76 (44-97)	96.5 (53-107)	.005
Total RT-qPCR tests for SARS-CoV-2	634 (100)	287 (45.9)	347 (54.7)	NA
Median RT-qPCR tests for SARS-CoV-2 per participant	5 (3-7)	4 (2-5)	7 (4-8)	< .001
No. of CQ	8,987	4,634	4,353	NA
CQ compliance	79.5	82.3	76.6	< .001
Baseline anti-SARS-CoV-2 IgG antibodies	119 (91)	63 (87.5)	54 (93)	.20
End of follow-up anti-SARS-CoV-2 IgG antibodies	97 (74)	45 (62.5)	52 (89)	.90

Abbreviations: CQ, Clinical Questionnaires; HCW, health care workers; IgG, immunoglobulin G; IQR, interquartile range; NA, not applicable; NPS, nasopharyngeal swab; RT-qPCR, real-time quantitative reverse transcriptase polymerase chain reaction.

^aComparisons were made between patients and health care workers. Mann-Whitney *U* test was used for continuous variables. Chi-square test was applied for qualitative variables.

SARS-CoV-2-Positive Participants' Characteristics and Outcome

Median age of the 18 participants who tested positive for SARS-CoV-2 was 57.5 (IQR, 39.5-64) years. Of them, 12 (66.6%) were asymptomatic (10 patients and two HCW), and six developed symptoms (two patients and four HCW). Regarding the viral load, 50% (n = 9) had low, 27.7% (n = 5) moderate, and 22.3% (n = 4) high viral load. Of note, no HCW had a high viral load compared with four patients. No severe disease course was observed and no COVID-19-associated deaths were recorded. Table 2 shows the characteristics of the subjects with a positive NPS RT-qPCR for SARS-CoV-2 infection. Detailed characteristics of each positive case for SARS-CoV-2 infection are shown in the Data Supplement.

Diagnostic Performance of a CQ for COVID-19 Screening

Regarding real-time follow-up with daily CQs, a total of 11,302 responses were expected and 8,987 were received: 4,634 from patients and 4,353 from HCW. Overall compliance was 79.5%. Respiratory symptoms were reported in 211 daily CQ for a 2.3% positive response rate: 4% (n = 175) for HCW and 0.77% (n = 36) for patients. However, the adjusted number of positive CQ was 19 of 634 (for operational definition and 15-day period as defined in methods). For estimation of diagnostic performance, we considered 634 RT-qPCR tests and the adjusted number of positive CQ. Therefore, calculated diagnostic parameters were as follows: SN 27.7% (95% CI, 0.07 to 0.48), SP 97.7% (95% CI, 0.96 to 0.98), PPV 26.3% (95% CI, 0.07 to 0.45) and NPV 97.8% (95% CI, 0.96 to 0.98), LR+ 12

FIG 1. SARS-CoV-2 monthly infection rate (%), orange). Bar colors represent the proportion (%) of individuals recruited in the specified month: blue: June; red: July; teal: August. Top of the bar, total number of individuals per month.

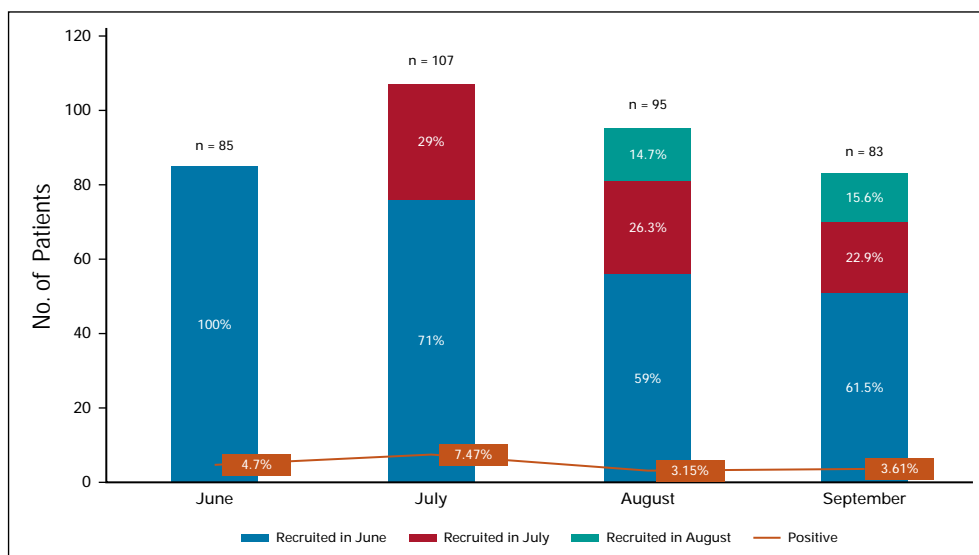


TABLE 2. Characteristics of Patients and Health Care Workers of the Chemoradiotherapy Unit With a Positive Real-Time Quantitative Reverse Transcriptase Polymerase Chain Reaction for SARS-CoV-2

Characteristic	Total, n = 18	Patients, n = 12, No. (%)	HCW, n = 6, No. (%)	P ^a
Asymptomatic	12 (66.7)	9 (75)	3 (50)	.52
Symptomatic with standardized COVID-19 definition	6 (33.3)	3 (25)	3 (50)	.52
Viral load				
Low	9 (50)	6 (50)	3 (50)	1.0
Moderate	5 (27.8)	2 (16.6)	3 (50)	.26
High	4 (22.2)	4 (33.3)	0	.24
Anti-SARS CoV-2 IgG antibodies' seroconversion	5 (27.8)	2 (16.7)	3 (50)	.26
Symptoms reported by CQ	211 (2.3)	36 (0.77)	175 (4)	< .001

Abbreviations: CQ: Clinical Questionnaire; HCW, health care worker; IgG, immunoglobulin G.

^aComparisons were made between patients and health care workers. Mann-Whitney *U* test was used for continuous variables. Chi-square test or Fisher exact test when applied was used for qualitative variables.

(95% CI, 4.93 to 30), and LR– 0.74 (95% CI, 0.55 to 0.98; Table 3). As a reference, symptoms not fulfilling the standardized operational definition showed an SN of 38.9% (95% CI, 0.17 to 0.64), PPV 14.29% (95% CI, 8.0 to 24.1), and LR+ 5.7 (95% CI, 2.9 to 10.9).

IgG SARS-CoV-2 Seroconversion Rate

A total of 119 blood samples were obtained at baseline (91.5%) and 97 (74.6%) at the end of follow-up. The presence of antibodies was observed in 1.6% (n = 2) of the baseline samples, whereas it was observed in 7.2% (n = 7) of the end of follow-up samples. Seroconversion rate was 27.7% for the 18 participants who had a positive RT-qPCR for SARS-CoV-2: it was 50% (n = 3 of 6) for HCW and 16.6% for patients (n = 2 of 12). Of these five cases who developed antibodies after SARS-CoV-2 infection, 40% (n = 2) had a low viral load, 20% (n = 1) had moderate viral load, and 40% (n = 2) had a high viral load.

TABLE 3. Diagnostic Performance of Clinical Questionnaires Using the COVID-19 Standardized Definition Among Patients and Health Care Workers of the Chemoradiotherapy Unit

Standardized Definition ^a	RT-qPCR–Positive	RT-qPCR–Negative	Total
Yes	5 True positives	14 False positives	19
No	13 False negatives	602 True negatives	615
Total	18	616	634

NOTE. Sensitivity: 27.7% (95% CI, 0.07 to 0.48), specificity: 97.7% (95% CI, 0.96 to 0.98), positive predictive value: 26.3% (95% CI, 0.07 to 0.45), negative predictive value: 97.8% (95% CI, 0.96 to 0.98), positive likelihood ratio: 12 (95% CI, 4.93 to 30), and negative likelihood ratio: 0.74 (95% CI, 0.55 to 0.98).

^aStandardized definition: fever, headache, or cough in the past 7 days plus one of the following: dyspnea, pharyngodynia, rhinorrhea, myalgia, arthralgia, conjunctivitis, or chest pain.

DISCUSSION

We present the results of a prospective cohort that examines asymptomatic participants of the chemoradiotherapy unit by means of biweekly RT-qPCR to determine SARS-CoV-2 incident cases during four months along with clinical and antibody seroconversion correlates in a designated COVID-19 priority facility in Mexico City.

SARS-CoV-2–positive testing depends on the population evaluated. We had initially reasoned that an infection rate of < 5% would be considered safe for patients with cancer on treatment provided low COVID-19–related mortality. Observed monthly incidence rate was 4.7%, 7.4%, 3.15%, and 3.5% for June–September 2020, respectively, for a cumulative incidence rate of 13.5%. For SARS-CoV-2–positive cases, 66% were asymptomatic, no patient was hospitalized, and no mortality was observed. Patients with cancer were older than HCW and had a numerically higher cumulative infection rate: 16.6% versus 10.3%, *P* = .3. No outbreaks were observed. We cannot exclude that the study itself actually curbed the infection rate and may have prevented an outbreak, since asymptomatic infected participants were required to isolate at home.

We consider our estimates are accurate for our population as the study design prevents bias from retrospective studies and those focused on symptomatic patients only. In support, Rajme-López et al¹⁵ screened 2000 HCW for SARS-CoV-2 with RT-qPCR in our own Institution and determined a prevalence of 7.1% among HCW assigned to the COVID-19 general ward compared with 3.1% for those assigned to a non–COVID-19 outpatient clinic. Regarding patients, Al-Shamsi et al screened serially with RT-qPCR 109 asymptomatic patients with cancer receiving oncologic treatment in a hospital in Dubai and reported a cumulative incidence of 29.4% in a similar 4-month period as in our study. Positivity rate after every screening cycle (weekly to monthly according to treatment) varied from 4.5% to 9.4%. Among those infected, mortality was 12.5%.¹⁶ Therefore, compared with our cohort with biweekly testing, their

cumulative incidence appears higher and COVID-19 outcomes included fatal cases. Given that median time of viral clearance is 20 days for asymptomatic patients, we believe biweekly testing is a pragmatic approach and does not explain the lower cumulative incidence observed in our cohort.¹⁷ Rather, it appears that infection rates in the chemoradiotherapy unit are a reflection of SARS-CoV-2 prevalence in the population and therefore, infection rates are expected to be variable among different chemotherapy units.¹⁸⁻²⁰ It remains to be determined what is a safe monthly infection rate and what is the correct reflex policy if a determined threshold is exceeded. With an average 4.6% monthly infection rate and no COVID-19–related mortality observed in our cohort, we believe this may represent a safe threshold. Caution should be observed as we did not include patients with hematologic malignancies. Risk may be variable among institutions, and chemotherapy units should provide infection rates so that appropriate decisions regarding continuity of treatment can be made.

Regarding the use of daily CQ as a screening tool, we hypothesized that given 40%-80% asymptomatic infections, SN would be suboptimal, but the LR of a positive test would be informative to prioritize molecular testing, as RT-qPCR testing is not widely available everywhere. Compliance was 79.5%, which we consider adequate, given the instrument was sent every day for 107 days. Self-reporting of symptoms or contact through daily CQ was higher for HCW compared with patients with cancer (0.77%). Fear related to constant exposure to potentially infected patients among HCW could offer an explanation. Excessive self-reporting of nonspecific symptoms can result in decreased diagnostic accuracy of the CQ. Therefore, the standardized operational definition was used for the estimation of diagnostic parameters of the CQ. We confirmed a poor SN. Given asymptomatic transmission of SARS-CoV-2, a false-negative rate more than 70% is unacceptable and argues for RT-qPCR testing if the goal is to protect patients and prevent outbreaks. By contrast, we confirmed that a simple and accessible tool such as the CQ can enrich RT-qPCR diagnostic yield by a factor of 12. If RT-qPCR testing needs to be prioritized in a given resource-deprived setting, the CQ is an excellent tool to select patients.

Observed IgG seroconversion rate after a positive RT-qPCR was lower than expected, both among patients (16.6%) and HCW (50%). We had hypothesized that patients receiving cancer treatment would be less likely to develop IgG

antibodies, given immunosuppression. We did confirm a very low seroconversion rate among patients. However, half of HCW also failed to develop antibodies. Despite the manufacturer claiming 100% SN, others have reported lower seroconversion rates.^{14,21,22} Low seroconversion rates may be explained by a combination of factors other than immunosuppression in patients with cancer undergoing oncologic treatment, mostly asymptomatic infections, mild disease severity, serologic assay targeting nucleocapsid antigens, and a delayed single measurement after diagnosis.^{12,23,24} Accordingly, we concluded that IgG determination is an unreliable way to estimate past infection rates in this specific clinical scenario.

Our study has some limitations. We did not include patients with hematologic malignancies and therefore, our results are not applicable to that population. Enrollment into the trial was not mandatory, and only 20% of eligible patients receiving treatment in the outpatient chemoradiotherapy unit accepted to participate. By contrast, most HCW agreed to participate. The study was conducted at a time when no participant had received an anti-SARS-CoV-2 vaccine. With vaccination, SARS-CoV-2 community transmission will decrease and the risk for patients with cancer and HCW will lower. However, given low global vaccination rates, our findings and ultimate recommendations of SARS-CoV-2 RT-qPCR screening in the chemotherapy unit may remain applicable, particularly in low-income countries, for a prolonged period.

In conclusion, among patients with cancer and HCW of a chemoradiotherapy unit, SARS-CoV-2 monthly infection rate ranged from 3.15% to 7.47%. Biweekly RT-qPCR testing detects asymptomatic infections, allows isolation of cases, and prevents viral transmission, increasing the safety of patients receiving ambulatory treatments during the COVID-19 pandemic. Patients with cancer undergoing treatment can have COVID-19 uncomplicated outcomes. CQs have poor SN but increase diagnostic yield of molecular testing and may be valuable to prioritize testing in resource-deprived settings. IgG seroconversion rate is low in this mostly asymptomatic population and may be an unreliable way to estimate past infection prevalence. Therefore, periodical SARS-CoV-2 RT-qPCR testing in asymptomatic patients and HCW should be implemented in chemoradiotherapy units to prevent SARS-CoV-2 transmission among this vulnerable population.

AFFILIATIONS

¹Departamento de Hematología y Oncología, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Ciudad de México, México

²Facultad de Medicina, Universidad Autónoma de Coahuila Unidad Torreón, Torreón, México

³Escuela de Ciencias, Departamento de Ciencias de la Salud, Universidad de las Américas Puebla, Puebla, México

⁴Facultad de Ciencias de la Salud, Universidad Juárez del Estado de Durango, Gómez Palacio, México

⁵Instituto Nacional de Medicina Genómica, Ciudad de México, México

⁶Instituto Nacional de Cancerología-Instituto de Investigaciones Biomédicas, Universidad Nacional Autónoma de México, Ciudad de México, México

⁷Subdirección de Epidemiología Hospitalaria, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Ciudad de México, México

CORRESPONDING AUTHOR

Fidel David Huitzil-Meléndez, MD, MSc, Departamento de Hematología y Oncología, Instituto Nacional de Ciencias Médicas y Nutrición “Salvador Zubirán,” Vasco de Quiroga 15, Belisario Domínguez Sección XVI, 14080, Tlalpan, Ciudad de México, Mexico; e-mail: drdavidhuitzil@gmail.com.

PRIOR PRESENTATION

Presented at 2021 ASCO Annual Meeting as an abstract online publication, June 4-8, 2021.

SUPPORT

Supported by a grant to Dr Luis Alonso Herrera-Montalvo, from Secretaría de Educación, Ciencia, Tecnología e Innovación de la Ciudad de México (SECTEI).

AUTHOR CONTRIBUTIONS

Conception and design: Monica Isabel Meneses-Medina, Jorge Humberto Hernandez-Felix, Luis Guillermo Anaya-Sánchez, Ana Karen Valenzuela-Vidales, Vanessa Rosas-Camargo, Arturo Galindo-Fraga, Alberto Cedro-Tanda, Luis Alonso Herrera-Montalvo, Alfredo Hidalgo Miranda, Fidel David Huitzil-Meléndez

Financial support: Fidel David Huitzil-Meléndez

Administrative support: Luis Guillermo Anaya-Sánchez, Mónica Isabel Meneses-Medina, Ana Karen Valenzuela-Vidales, Vanessa Rosas-Camargo, Jorge Humberto Hernández-Felix

Provision of study materials or patients: Alberto Cedro-Tanda, Luis Alonso Herrera-Montalvo, Alfredo Hidalgo Miranda, Fidel David Huitzil-Meléndez

Collection and assembly of data: Monica Isabel Meneses-Medina, Jorge Humberto Hernandez-Felix, Luis Guillermo Anaya-Sánchez, Ana Karen Valenzuela-Vidales, Vanessa Rosas-Camargo, Edgar Omar Martos-Armendariz, Alberto Cedro-Tanda, Lucero Itzel Torres-Valdiviezo, Raymundo David Valdez-Echeverria

Data analysis and interpretation: Monica Isabel Meneses-Medina, Jorge Humberto Hernandez-Felix, Ana Karen Valenzuela-Vidales, Vanessa Rosas-Camargo, Edgar Omar Martos-Armendariz, Lucero Itzel Torres-Valdiviezo, Alberto Cedro-Tanda, Alejandro Noguez-Ramos, Arturo Galindo-Fraga, Fidel David Huitzil-Meléndez

Manuscript writing: All authors

Final approval of manuscript: All authors

Accountable for all aspects of the work: All authors

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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Monica Isabel Meneses-Medina

Honoraria: Roche, MSD

Consulting or Advisory Role: MSD, AstraZeneca (I)

Speakers' Bureau: AstraZeneca (I)

Research Funding: AstraZeneca (I)

Other Relationship: Lilly, Roche (I), Amgen (I), AstraZeneca (I)

Vanessa Rosas-Camargo

Honoraria: Lilly, Roche

Alejandro Noguez-Ramos

Speakers' Bureau: IPSEN

Travel, Accommodations, Expenses: Pfizer

Fidel David Huitzil-Meléndez

Consulting or Advisory Role: MSD, AstraZeneca

Honoraria: MSD, Roche (I)

Speakers' Bureau: AstraZeneca

Research Funding: AstraZeneca

Other Relationship: Roche, Amgen, AstraZeneca, Lilly (I)

No other potential conflicts of interest were reported.

ACKNOWLEDGMENT

The authors would like to thank the Instituto Nacional de Medicina Genómica for their support in this work to process RT-qPCR for SARS-CoV-2 and to chemists from the Central Laboratory at the Instituto Nacional de Ciencias Médicas y Nutrición who processed blood samples for SARS-CoV-2 antibodies.

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