

**COVID-19 INFECTION CONTROL AND PREVENTION IN OPHTHALMOLOGY OFFICES
PRE- APPROVED TEMPLATE**

Title: COVID-19 Mitigation for Mountain Eye Associates

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Project Description	This project was implemented in an effort to prevent, as much as possible, the spread/transmission of the novel coronavirus within our office and patient contacts.
Background Information	Over the years we have implemented patient screening and distribution tools in an effort to improve office efficiency and throughput. This included use of a large main waiting room and a smaller sub-waiting/dilation room. When patients were ready for one of us to see they could then be rapidly transferred to one of the two rooms each physician saw patients out of. Other exam rooms were used as screening rooms by our techs. While this system worked very well in "normal" times, it obviously could not be continued during a viral pandemic, as patients were frequently in close contact with each other and the staff.
Project Setting	Group Practice
Study Population	Almost all of our processes were revamped. Patients were asked to either wait in their cars in the parking lot or, if they chose to stay in the waiting room the only chairs available were at least 6 feet apart. When confirming appointments, and on arrival, patients were asked a number of questions related to possible COVID-19 exposure, including travel history, know exposure, relation to someone with known exposure, history of fever, cough, or other illness etc. Employees also reported any of these exposures/symptoms. All employees and patients had their temperature checked with a temporal scanner thermometer before being allowed into the patient care areas of the office. All employees, techs, and patients also wore face masks when in the office. When a tech was ready for their next patient, the patient was called from their car or waiting room and taken straight back to an exam room. They were screened in this room, and then stayed in the same room until seen by us. They were then only taken from that room when the checkout area was clear of other patients so that they could rapidly check out and leave the office. In this way each patient only had prolonged contact with one exam room of the office. After the patient was seen the exam room and equipment was thoroughly disinfected with Clorox EZ kill wipes. Our office building is 2 stories, with all of the exam rooms on the upper floor. We also set up an exam room on the lower floor, accessible through a separate outside door, for patients with known or suspected COVID-19. Fitted N95 masks, face shields, and Tyvek gowns (purchased at Lowe's) were available for providers seeing these high-risk patients. Again, this room was thoroughly disinfected after a patient was seen. Both regular hand soap and alcohol-based disinfectant were available from wall mounted dispensers in each room and hands were washed before and after patient contact. A protocol for telehealth was also developed and implemented and patients were encouraged to use this for their visit if feasible.

<p>Quality Measures</p>	<p>Prior to COVID-19 patients were not asking the health screening questions. During flu season we did encourage mask use for any symptomatic patient who needed to still be seen. Patients sat close together in both the main and sub waiting rooms. Multiple patients were seen in one exam room over the day. The slit lamp etc were wiped down but the rest of the room was not disinfected between patients. Hand washing was encouraged but not routinely followed by all. Patients were asked to either wait in their cars in the parking lot or, if they chose to stay in the waiting room the only chairs available were at least 6 feet apart. When confirming appointments, and on arrival, patients were asked a number of questions related to possible COVID-19 exposure, including travel history, know exposure, relation to someone with known exposure, history of fever, cough, or other illness etc. Employees also reported any of these exposures/symptoms. All employees and patients had their temperature checked with a temporal scanner thermometer before being allowed into the patient care areas of the office. All employees, techs, and patients also wore face masks when in the office. When a tech was ready for their next patient, the patient was called from their car or waiting room and taken straight back to an exam room. They were screened in this room, and then stayed in the same room until seen by us. They were then only taken from that room when the checkout area was clear of other patients so that they could rapidly check out and leave the office. In this way each patient only had prolonged contact with one exam room of the office. After the patient was seen the exam room and equipment was thoroughly disinfected with Clorox EZ kill wipes. Our office building is 2 stories, with all of the exam rooms on the upper floor. We also set up an exam room on the lower floor, accessible through a separate outside door, for patients with known or suspected COVID-19. Fitted N95 masks, face shields, and Tyvek gowns (purchased at Lowe's) were available for providers seeing these high-risk patients. Again, this room was thoroughly disinfected after a patient was seen. Both regular hand soap and alcohol-based disinfectant were available from wall mounted dispensers in each room and hands were washed before and after patient contact. A protocol for telehealth was also developed and implemented and patients were encouraged to use this for their visit if feasible. In 30 days, number of patients seen in total, and number of patients seen in telehealth will be compared to the same time frame from 2019.</p>
<p>Project Interventions and Improvement Period</p>	<p>Patient flow: Patients will be reminded with their automated appointment reminder calls to reschedule if they have any history of travel to high risk areas or any symptoms of COVID-19. They will also be asked these questions on arrival to the office, and have their temperature checked. They will only be allowed further into the office if they are asymptomatic, afebrile, and have no significant risk factors in their history. Once checked in patients will be encouraged to wait in their cars until they can be taken straight back to an exam room. If they do wait in the waiting room most of the chairs have been removed and the remaining chairs are at least 6 feet apart. Once taken back for screening patients will be escorted straight to an exam room, where they will remain until the end of the visit. Once the patient has left the exam room it will</p>

	<p>be thoroughly disinfected with EZ Kill wipes.</p> <p>Hand washing: Employees and Doctors will wash hands with alcohol-based sanitizer before and after patient visits. Dispensers are located on the wall in every exam room and patient care area.</p> <p>Staffing: Only the number of staff necessary for the patient load will be in the office. Masks will be worn at all times while in the office providing patient care.</p> <p>Telehealth: A telehealth protocol was developed and used by telephone triage personnel to determine which patients/problems can be realistically seen through telehealth. A provider is available every day just for telehealth visits. Options for telehealth include Facetime (only during the crisis), through our EMR ModMed, or through Connect on Call- the latter 2 are HIPPA compliant.</p>
Project Team	<p>My role as senior partner will be to ensure that these changes are implemented and adhered to. Others extensively involved will be my partner, an associate, a lead tech, and the office administrator.</p>

COVID-19 Infection and Prevention in Ophthalmology Offices
Section 2. Project Evaluation

PROJECT SUMMARY	Review the effect and adjustment of implementing the policy changes after a minimum of 30-days and in the following sections, please prepare a brief summary of the project highlighting the data collected, effectiveness of the measurement approach, interventions and the overall impact of the project.
BASELINE DATA	<ul style="list-style-type: none"> • April 2019 used as baseline • Temperature check of patients and illness questionnaire-0/1958=0% • Number of patients spending time in waiting room or sub-waiting room 1838/1958=94% • Room disinfections- 100% but chin rest and head rest only • Hand washing- estimated at 50% of patient encounters • Patients waiting in car for appointment-0/1958=0% • Face mask wearing for patient encounters 0/1958=0% • Patients only in one room for entire visit-1838/1958=94% • Separate outside entrance to isolated exam room-0/1=0% • Telehealth visits-0/1958=0%
FOLLOW-UP DATA	<ul style="list-style-type: none"> • Temperature check and illness (COVID) questions-404/404=100% • Number of patients in waiting room or sub-waiting room-30(est)/404=7% (only 1-2 at a time, at least 6 ft apart, with masks on) • Room disinfection's-404/404=100% included complete wipe down of slit lamp, patient chair, desk, anything touched by Dr. or pt. • Hand washing-before and after seeing patient-404/404=100% • Patients waiting in car-120(est)/404=30%. Note- pts waited in car if an exam room was not yet available for them • Face mask wearing in office-403/404=100% for patients, 30/30=100% for staff • Patients only in one exam room for entire visit-404/404=100% • Separate outside entrance to isolated exam room-1/1=100% • Telehealth visits-21/404=5%.
PROJECT IMPACT	<p>Overall, we were successful in changing long standing patient care and patient flow patterns. Early on there was some reluctance on the part of staff and patients regarding mask wearing, but as the month wore on and the news about COVID worsened this was readily adhered to.</p> <p>The attention to room cleaning and hand washing will hopefully stay with us even after the pandemic passes.</p> <p>The changes implemented definitely required more staff per patient visit and more supplies and cost per patient visit. The challenge going forward will be to find a way to practice with the needed changes in a financially viable manner.</p> <p>Telehealth has limited applicability to Ophthalmology. Lid lesions, some external diseases etc lent themselves to this modality, but overall patients and doctors preferred the in-office visits. Despite actively promoting it, we managed to convert only 5% of the visits to telehealth.</p> <p>Another lesson learned was that equipment and supplies (thermometers, masks,</p>

	<p>sterilizing wipes, hand cleaner) became more difficult to procure as time went on. We had one staff member who spent part of each day scouring the internet for availability and ordering as needed.</p> <p>Patients noticed the changes. We had a comment on Facebook from a patient seen for an emergent condition stating that the office was very clean with good protocols and that other patients should feel comfortable in coming in. This will need to continue to grow our volume in the future.</p> <p>The COVID crisis, and all of these changes, have had a marked effect on practice productivity. Year to year April patient volume decreased 80%. Outpatient surgical volume fell 100%.</p>
<p>PROJECT REFLECTION</p>	<ul style="list-style-type: none"> • Do you feel that the project was worthwhile, effective? Yes • How might you have performed the project differently? Data collection for some data points could have been done better. Doing a project during a time of great unrest and change is not ideal. • Please offer suggestions for other ophthalmologists undertaking a similar project. Provide strong leadership for needed change while listening closely to your staff and partners. Very good ideas came from multiple sources, and we were all able to coalesce around the best ideas and move them forward.

