COVID-19 INFECTION CONTROL AND PREVENTION IN OPHTHALMOLOGY OFFICES

PRE- APPROVED TEMPLATE

Title: Covid-19 Response of Henry Ford Ophthalmology Department to Minimize Patient and Staff Exposure to Corona Virus

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Project Description	With the outbreak of the COVID-19 virus infection, I established a department wide quality improvement team with leaders from our physician staff as well as administrative non-physicians. The group meets daily by telephone conference call to plan and respond to changes associated with the pandemic. The goal is to reduce the risk of COVID-19 transmission to patients and employees in Ophthalmology, to reduce the consumption of PPE and to improve access to hospital resources for growing volumes of infected patients. This includes hospital beds and surgical services. We have a large Optometric delivery program, so we are collaborating with them on our efforts.
Background Information	Following a meeting of the Hospital physician leadership, I determined the need for local planning and strategy for reducing the risk of transmission of the corona virus within the department. We take care of a significant number of elderly patients in Ophthalmology where the risks are greatest for the corona virus. We also have our residents and fellows at the front line with dealing with emergencies increasing their risk of exposure.
Project Setting	Hospital Multi-Specialty Group Healthcare Network
Study Population	Restricting practice to emergency and urgent patient care and surgical procedures. Deferring all the routine, elective care, and surgical procedures. Developing a strategy for PPE use while caring for patients. Process of changing patient flow to reduce the congregation of numerous patients in our waiting rooms. Reinforcing the cleaning of exam rooms and examination equipment. Developing mechanism for video and other forms of tele-medicine including phone conferencing. Consolidating practice from 14 locations to 5. Developing a schedule for emergency coverage as well as for urgent patients that must be seen. Offloading surgical procedures from our main hospital to one of the suburban locations. Discontinuing formal educational assembly and rounds using Video conferencing instead.

Quality Measures	Volume of patients scheduled ie no routine visits, pre-screening of patients by greeters and by our reception staff
Project Interventions and Improvement Period	The first big project was to determine how to reduce our schedules to just urgent/emergent patients. Each physician reviewed schedule with a goal to determine patients that must be seen, can be delayed 2 to 4 weeks and can be delayed 2 months or more. Once the list is determined, technical staff are tasked with reaching out to patients to change their appointments to reflect the determination of the physician. Second is the plan to reduce our footprint to 5 location. This is being worked on and will be in effect in the coming week. We have had to work out staffing schedules as we move staff and patients from the locations being closed. Staff are reminded about the importance of hand washing and hand sanitizing. We are also emphasizing disinfection of our exam rooms in between patients. We have divided our residents into teams to reduce the risk of exposure to a broad section of the residents. We are also working on making sure we can recapture all patients who have been cancelled by us or on their own especially patients who need to undergo office based or surgical procedures. We have also been looking at redeploying some of our staff to assist the hospital in any way their skills may help.
Project Team	I am the department chair and co-leader of the project. Director of glaucoma service leads the project. Other members include the chief quality physician, section chief for retina, glaucoma, members of our physician executive cabinet, Administrative manager and other operations leaders, nurse quality coordinator. All these individuals participate daily in our teleconference and have specific tasks to accomplish and report on at the meetings.

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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	Prior to Covid-19 pandemic the department operated out of 13 clinical locations with a volume of 135,000 patient visits annually for 35 ophthalmologists, optometrists, and other vision care specialists. We also perform over 6,000 surgeries annually.
FOLLOW-UP DATA	We successfully reduced our clinical footprint to keeping 6 regional locations open. The other locations are temporarily closed. Over the month of April, we rescheduled over 20,000 unique patient visits and 800 surgical procedures. We keep our main campus hospital location open for emergencies and urgent inpatient consults. Using the strategy by each provider evaluating their schedules and highlighting patients who can be deferred for 2 months, others who are not urgent but are important to be seen over 2-4 weeks and those who need to be seen on the schedule. We have also developed our video and telephone virtual visits and gone from no virtual visits to over 300 virtual visits per week with almost all of our providers participating. We are piloting a program for drive up IOP checks using I-Care tonometers. All patients are required to wear protective masks and all eye care staff also are required to keep masks on throughout the day. Prior to implementing the requirement for patients and staff to be wearing masks we had 1 physician and 4 support staff contracting the virus. Since that time, we have had no episodes of staff becoming infected. Staff with direct patient contact wear N-95 or KN-95 masks. We have reduced our daily 1 hour calls now to 3 times per week and planning for future re-opening/ramp up. We developed a technique to indicate exam rooms that require cleaning with a large stop card on the door. We kept an inventory of PPE across the department and distributed them to all locations from a central source. This ensured adequate supplies for each location. After cleaning the placard is changed to a green check mark. We are conducting staff meetings, virtual grand rounds, and educational meetings on Zoom.
PROJECT IMPACT	The project allowed us to safely reduce patient volumes to a level that allowed for social distancing and to be able to manage our patients with urgent needs. It allowed us to develop techniques for virtual care for patients. We need to find a technique for doing automated visual fields that will allow cleaning of the apparatus without damaging the surface of the bowls. We were successful in maintaining our practices, keeping our staff and patients safe.

PROJECT REFLECTION	• **Do you feel that the project was worthwhile, effective?** Yes • **How might you have performed the project differently?** We did not have all specialties on our planning conference calls. It would have been useful to have all specialties have a representative. • **Please offer suggestions for other ophthalmologists undertaking a similar project.** Important to have a wide group of physicians and administrative staff involved in a daily planning call. This can be adjusted as the need arises. Make action plans at the end of each call. Publicize minutes of the meeting to all vested parties. Monitor strategies and adjust accordingly.