

# Infection control in optometry

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### Background

Infection control (IC) is an integral part of every optometry practice; never more apparent than during the COVID-19 pandemic.

## Methods

A cross-sectional survey was designed and pilot-tested. Following minor modifications, Optometry Australia members were invited to complete the survey in late January 2021.

### Results

In total, 407 optometrists responded; 105 responses were removed due to incomplete data, leaving 302 responses in the final data analysis (6% response rate).

### **Knowledge:**

Out of 16 questions, the average score was  $9.3 (\pm 2.1)$ ; the question answered correct most frequently (98.0%) was 'During standard precautions, which area/s of the consulting room should be cleaned on a daily basis?'-door knob (Fig 1).

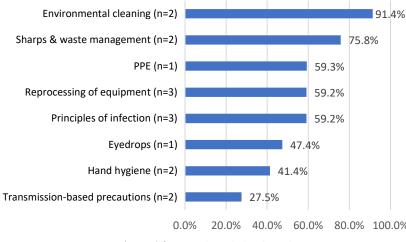


Fig 1: Correct responses (avg %) for n=16 knowledge-based questions across IC themes

Attitude: 85.1% of optometrists strongly agree they are responsible for best-practice IC; only 41.5% strongly agree they understand bestpractice IC techniques (Fig 2).

Hand hygiene is an essential part of my role as an optometrist

#### I understand best-practice IC techniques

Optometrists are responsible for best-practice IC in the consulting room 0% 80% 100% 20% 60% ■ Neither agree nor disagree Strongly agree Somewhat agree Somewhat disagree Srongly disagree

#### Fig 2: Optometrists' attitudes to IC

Never

Practice behaviours: 68.5% of optometrists would never work with patients if they had symptoms of conjunctivitis. However, 34.6% of optometrists reported patients with infective eye symptoms were never isolated in the practice (Fig 3).

Would you work with patients if you had symptoms of conjunctivitis?

Patients with respiratory symptoms are isolated from the rest of the practice?

Patients with infective eye symptoms are isolated from the rest of the practice?

Are reusable probes used on patients with infective eye symptoms?

Is a history of infectious disease sought from the patient? 0% 20% Always Some of the time

Most of the time Not answered

Fig 3: Transmission-based precautions practice behaviours

48.3% of optometrists reported use of 70% isopropyl wipes to disinfect tonometer probes, despite this contravening best-practice advice.<sup>1</sup> Only 5.0% and 4.3% reported use of high-level disinfection for tonometer probes; dilute bleach and Tristel Duo respectively. 53.6% reported use of disposable tips and 41.1% used non-contact tonometry.

Barriers: 75.2% reported at least one barrier to providing best-practice IC insufficient time was the most frequently identified (46.5%) barrier.

#### Impact of COVID-19 pandemic (n=284, Fig 4)

100%

Not applicable

- The rate of slit lamp breath shield use increased 5.8 times; telehealth optometry use increased 11.9 times; and triage use increased 4.1 times.
- When the patient had respiratory symptoms, optometrists' face mask use increased 4.4 times and physical distancing in the waiting room increased 4.6 times.
- During the height of the pandemic, the procedures most commonly avoided were direct ophthalmoscopy and contact lens fitting, followed by contact tonometry and gonioscopy; the PPE most commonly used was a face mask.

I have	been satisfied w	ith my work	place's IC	C policies		
l woul	d take time off w	ork if I had s	symptom	ns of COVID∹L	9	
l woul	d get tested if I h	ad symptom	ns of COV	/ID-19		
COVID-19 has required me to reassess my IC practices						
0% 20	0% 40	)%	60%	809	% 1009	
Strongly agree		Somewhat agree		Neither a	Neither agree nor disagree	
Somewhat disagree		Srongly disagree		Not answ	Not answered	
Fig 4: Optometrists' attitudes to IC since the COVID-19 pandemic						

### Conclusion

Optometrists have changed their IC practice since COVID-19, increasing their use of slit lamp breath shields, PPE and triage. Although of a generally high standard, there is room for improvement in optometrists' knowledge and practice behaviours, particularly in relation to transmission-based precautions

### References

1. Hart et al. Infection control guidelines for optometrists 2020. https://doi.org/10.1080/08164622.2021.1887704