

# Safety and Efficacy of Precivia® intravitreal injection device in a Nurse-led intravitreal injection service: Swindon Experience

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## Introduction

- Over recent years, there has been an exponential increase in IVIT injection placing a significant burden on NHS services to meet this demand.
- The Royal College of Ophthalmology have recommended non-medical health care professionals that are suitably trained can perform IVIT.
- This has been adopted and proven beneficial in numerous centres across the UK, given the increase in usage of Anti-VEGF therapies in recent years.<sup>1</sup>

## Aim

To retrospectively review the safety and efficacy of the Precivia® injection device for intravitreal Anti-VEGF delivery by suitably trained ophthalmic nurses.

## Methods

A retrospective review was completed of all anti-VEGF intravitreal injections delivered at the Great Western Hospital between May 2015 and May 2020.

## Results

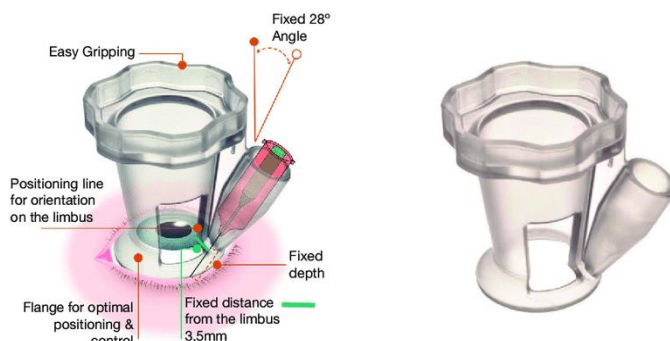


Figure 1 - The Precivia® (previously known as InVitra®) intravitreal injection assist device, manufactured by FCI Ophthalmics USA.<sup>2</sup>

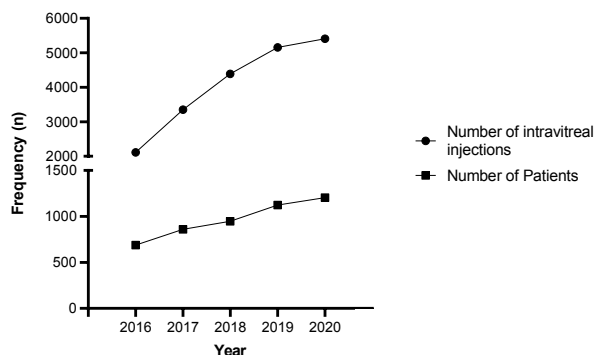
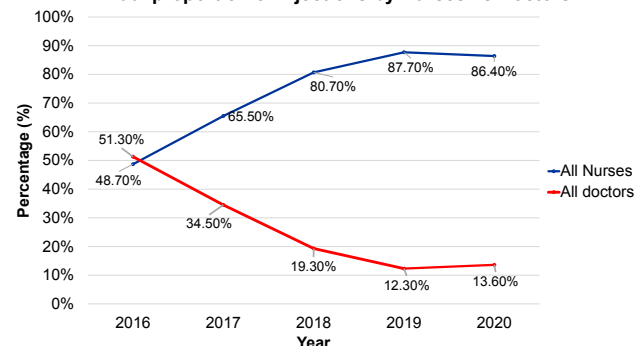


Figure 2 - Number of intravitreal injections administered by ophthalmic nurses and number of patients over the five-year study period.

## Annual proportion of injections by Nurses vs Doctors



# Injections	Year				
	2015 - 2016	2016 - 2017	2017 - 2018	2018 - 2019	2019 - 2020
Nurses	2112	3352	4389	5158	5410
Doctors	2120	1765	1048	720	849

Figure 3 - Annual proportion of intravitreal injections administered by ophthalmic nurses vs. doctors

## Annual Percentage of Complications

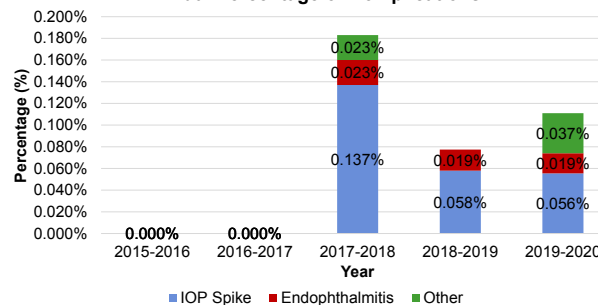


Figure 4 - Annual percentage of complication types

## Discussion

- 20,421 intravitreal injections were performed over 5 years by trained ophthalmic nurses using the Precivia® assist device.
- Three cases (0.015%) of endophthalmitis were identified.
- All 3 cases were culture negative and treated with intravitreal antibiotics. Once case underwent pars plana vitrectomy with further intravitreal antibiotics.
- Reported rates of post-injection endophthalmitis vary between 0.02-0.06%<sup>3</sup> demonstrating the devices' safety and efficacy well in nurses hands.

## Conclusions

Use of the Precivia® intravitreal injection assist device by trained ophthalmic allied health professionals is a safe and cost-effective way to deliver intravitreal injections service.

## References

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- Hasler PW, Bloch SB, Vilumsen J et al. Safety study of 38,503 intravitreal ranibizumab injections performed mainly by physicians in training and nurses in a hospital setting. *Acta Ophthalmologica*. 2015