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.[1]

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

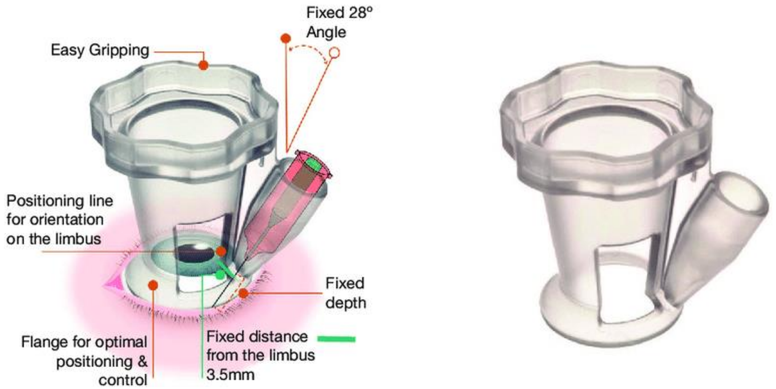


Figure 1 *- The Precivia® (previously known as InVitria®) intravitreal injection assist device, manufactured by FCI Ophthalmics USA.[2]*

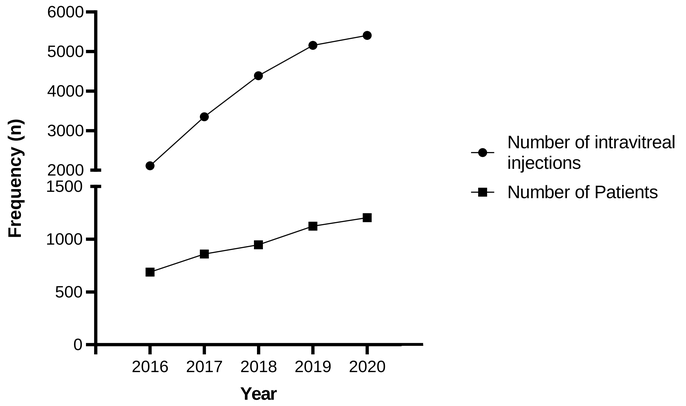
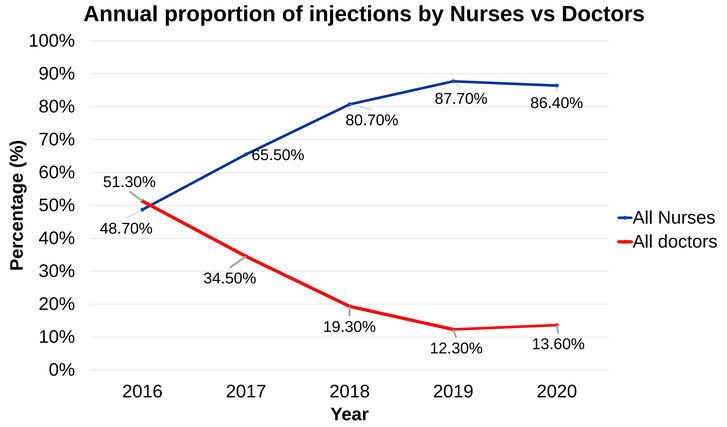


Figure 2 *- Number of intravitreal injections administered by ophthalmic nurses and number of patients over the five-year study period.*



	Year				
# Injections	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*

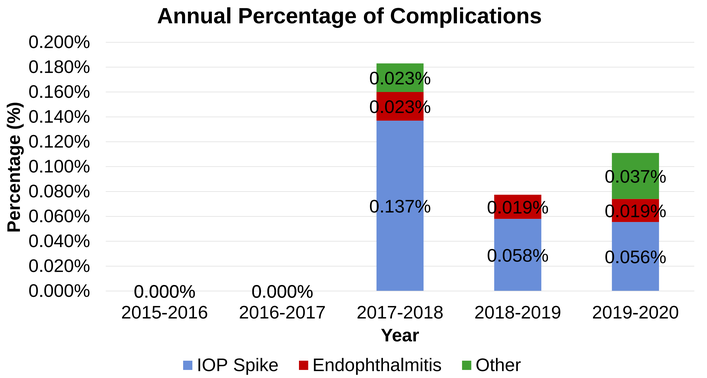


Figure 4 *- Annual percentage of complication types*

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%[3] 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

1. Simcock P, Kingett B, Mann N et al. A safety audit of the first 10 000 intravitreal ranibizumab injections performed by nurse practitioners. *Eye*. 2014. 2. Hasan H, The role of intravitreal assistant devices in the establishment of nurse-led AMD service. EyeNews 2018. 3. Hasler PW, Bloch SB, Villumsen 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