WALES GENERAL OPHTHALMIC SERVICES (WGOS)

WGOS 4 – DATASETS & EQUIPMENT

MEDICAL RETINA, HYDROXYCHLOROQUINE AND GLAUCOMA

IMPLEMENTATION DATE: 1 APRIL 2024

To support the delivery of WGOS 4, this document outlines expectations for datasets and equipment requirements.

This is not a replacement for professional judgment or responsibility.

This is not the WGOS 4 Clinical Manual

For most up-to-date version of this WGOS Clinical Manual

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1. Introduction

1.1. Datasets for WGOS4 compromise of:

1.1.1. Clinical datasets: Administrative, clinical, and other data required to inform the patient flow in the WGOS4 pathways.

1.1.2. Activity datasets: Data required to inform claims made by contractors providing WGOS4 services.

1.2. The datasets support the delivery of WGOS4. They are not a replacement for professional judgement or responsibility. Contractors and performers of WGOS4 must be aware of and comply with relevant:

1.2.1. Legal and regulatory requirements

1.2.2. NICE guidelines

1.2.3. Royal College of Ophthalmologists guidelines

1.2.4. College of Optometrists guidelines

Clinical datasets

1.3. Clinical datasets produced in WGOS4 are the responsibility of the performer providing WGOS4.

1.4. The WGOS4 optometrist should conduct tests relevant to a patient's needs and the clinical datasets, using clinical judgement:

1.4.1. The datasets are not intended as a limitation of scope of care.

1.4.2. The datasets do not imply that every test must be conducted in every episode of care.

1.4.3. Older data forming part of a dataset must be clearly identified (with its date) to aid its interpretation by the recipient.

1.5. Complete appropriate clinical datasets must be made available on entry to and at each point in the WGOS4 pathway when:

1.5.1. patient care is transferred from one provider to another

1.5.2. a patient is transferred from or to another part of the WGOS4 medical retina and glaucoma pathways

1.5.3. WGOS4 Hydroxychloroquine/chloroquine monitoring is performed

1.6. Failure to provide complete clinical datasets, without a reasonable clinical exception recorded, may result in:

1.6.1. Return of a referral for individual cases

1.6.2. Performance management measures and support

1.7. The contractor will ensure that all the equipment required for WGOS4 is available to the performer before any examinations are undertaken so that the performer may comply with the clinical dataset:

1.7.1. The performer must be satisfied the equipment meets standards to ensure care and safety to patients and public, in line with General Optical Council's Standards of Practice for Optometrists and Dispensing Opticians.

1.7.2. If technical difficulties arise during an examination with a piece of equipment the performer will use clinical judgment to determine whether it is in the patients' best interests to delay completion of the episode or conclude the episode without the information that the equipment would have provided. This should be clearly noted in the patient record and any referral.

1.7.3. Equipment required to perform examinations as required to fulfil clinical datasets must be always available when WGOS 4 is being provided. If equipment is not available either due to absence or requiring servicing, then relevant WGOS 4 pathway cannot be provided, and the contractor must inform the HB of this. The HB has the right to suspend provision of the WGOS4 pathway by the contractor's practice until confirmation is made that all required equipment is available.

1.8. When an emergency referral is required, seeking to complete a full dataset should not act as a barrier to the WGOS 4 Optometrist's timely management of the patient. In these cases, the performer should use their clinical judgment to determine the clinical examinations and dataset which are required in the best interests of the patient. Details of the emergency referral made should be kept within the patient record.

Activity datasets

1.9. These are the responsibility of the contractor with the WGOS4 service agreement.

1.10. The WGOS4 performer must ensure that the clinical examination produces the data required for completion of the activity datasets by the contractor.

1.11. Failure to provide all data required for activity datasets may result in:

1.11.1. payments being delayed or not made in individual cases

1.11.2. financial probity measures for persistent failure of submission.

2. Referral to Medical Retina Filtering (MRF)

Clinical dataset

2.1. Administrative data:

2.1.1. Date of examination(s)

2.1.2. Date of referral

2.1.3. Patient identifiers: Full name, date of birth, address, postcode(& NHS number, if known)

2.1.4. Patient communication needs: Language, interpreter, accessible format

2.1.5. Referrer identifiers: Full name, practice name, practice address, practice postcode

2.2. Clinical investigations data:

2.2.1. Anterior segment assessment using stereoscopic slit lamp biomicroscopy

2.2.2. IOP measurement using contact applanation tonometry[1] (including time)

2.2.3. Macula and disc OCT (description and images), if available

2.2.4. Fundus examination using stereoscopic slit lamp biomicroscopy, with pupil dilatation if necessary (and fundus photographs, if available)

2.2.5. Pinhole acuity

2.2.6. RAPD check

2.2.7. Visual acuity / vision with current glasses

2.3. Additional data:

2.3.1. Working diagnosis

2.3.2. Other data as appropriate, for example relevant history, symptoms and medications

[1] Slit-lamp mounted or hand-held contact applanation tonometer capable of measuring intra-ocular pressure indirectly by assessing the force needed to flatten a predetermined surface area of the cornea.

3. Referral from WGOS 4 MR to Ophthalmology

Clinical dataset

3.1. Administrative data:
- 3.1.1. Date of examination(s)
- 3.1.2. Date of referral
- 3.1.3. Patient identifiers: Full name, date of birth, address, postcode (& NHS number, if known)
- 3.1.4. Patient communication needs: Language, interpreter, accessible format
- 3.1.5. Referrer identifiers: Full name, MR qualifications, practice name, practice address, practice postcode

3.2. Clinical investigations data:
- 3.2.1. Anterior segment examination using stereoscopic slit lamp biomicroscopy
- 3.2.2. Fundus examination using stereoscopic slit lamp biomicroscopy, with pupil dilatation
- 3.2.3. Fundus photographs (widefield if available) (description and images included)
- 3.2.4. Autofluorescence, if available (description and images included)
- 3.2.5. Macula and disc OCT (description and images included)
- 3.2.6. IOP measurement using contact applanation tonometry[2] (slit lamp mounted, including time)
- 3.2.7. Pinhole acuity
- 3.2.8. RAPD check
- 3.2.9. Visual acuity / vision with current glasses

3.3. Additional data:
- 3.3.1. Drug allergies and intolerances
- 3.3.2. Carer
- 3.3.3. Co-morbidity, including relevant general medical information
- 3.3.4. Driving
- 3.3.5. Ethnicity
- 3.3.6. Risk factors:
  - 3.3.6.1. Diabetes
  - 3.3.6.2. Family history of macular degeneration
  - 3.3.6.3. Peripheral vascular disease
  - 3.3.6.4. Hypertension
  - 3.3.6.5. Smoking
  - 3.3.6.6. Steroids (topical, inhaled, oral)
- 3.3.7. Symptoms &/ functional impact, including impact on work
- 3.3.8. Working diagnosis
- 3.3.9. Previous treatment / management

[2] Slit-lamp mounted contact applanation tonometer capable of measuring intra-ocular pressure indirectly by assessing the force needed to flatten a predetermined surface area of the cornea.

4. Discharge from Ophthalmology to MR Management (MRM)

Clinical dataset

4.1. Administrative data:
- 4.1.1. Date of examination(s)
- 4.1.2. Date of referral
- 4.1.3. Patient identifiers: Full name, date of birth, address, postcode, NHS number
- 4.1.4. Patient communication needs: Language, interpreter, accessible format
- 4.1.5. Discharger identifiers: Full name, role, Eye Unit Name, Eye Unit address, Eye Unit postcode

4.2. Diagnosis

4.3. Treatment

4.4. Next follow-up interval

4.5. Clinical investigations data:
- 4.5.1. CCT
- 4.5.2. IOP measurement using contact applanation tonometry[3] (including time)
- 4.5.3. Description of disc and macula and OCT images
- 4.5.4. Pinhole acuity
- 4.5.5. Visual acuity / vision with current glasses

5. WGOS 4 – Hydroxychloroquine/Chloroquine (HCQ) Monitoring Requests

Clinical dataset

5.1. Requests for WGOS HCQ monitoring by prescribers must include:
- 5.1.1. The drug prescribed
- 5.1.2. The duration of prescription
- 5.1.3. The presence or absence of additional risk factors
- 5.1.4. The presence or absence of other known retinal conditions
- 5.1.5. The presence or absence of previous HCQ toxicity

6. WGOS 4 – Hydroxychloroquine/Chloroquine (HCQ) Monitoring Examinations

Clinical dataset

6.1. For all examinations:
- 6.1.1. spectral domain optical coherence tomography (SD- OCT)
- 6.1.2. fundus autofluorescence (FAF) (capture will be widefield if available[4], or mosaic where widefield capabilities are not available)

[3] Slit-lamp mounted contact applanation tonometer capable of measuring intra-ocular pressure indirectly by assessing the force needed to flatten a predetermined surface area of the cornea.
[4] FAF scans of greater than 50 degrees are recommended but overlapping scans less than 50 degrees which include the extra- macular retina are acceptable.

Additionally, for examinations with the presence of abnormalities on either SD-OCT or fundus autofluorescence imaging:

6.1.3. automated visual field testing using either a 10-2 or 30-2 protocol depending on the location of the structural abnormality

6.2. Where required monitoring tests to complete the clinical dataset are not possible, for example due to ocular co-pathology that prevents interpretable imaging, this must be noted in the patient record and communicated back to the prescribing physician.

6.3. The Outcome / Management Plan forms part of the clinical dataset and must be communicated to the prescribing physician using the national template as classified below:

CLASSIFICATION	CLINICAL FEATURES
NO TOXICITY	No abnormalities suggestive of toxicity detected on SD-OCT or FAF.
POSSIBLE TOXICITY	SD-OCT or FAF result typical of hydroxychloroquine retinopathy, visual fields normal. Patient referred to the HES for further investigation
DEFINITE TOXICITY	Two test results with corresponding abnormalities consistent with hydroxychloroquine retinopathy. This definition can be satisfied in the following scenarios: 1. SD-OCT and FAF typical of hydroxychloroquine retinopathy 2. Either SD-OCT or FAF typical of hydroxychloroquine retinopathy, supported by visual field-testing findings corresponding to the anatomical defect. Patient referred to the HES for further investigation

6.4. The full clinical dataset must be transferred to the HES if a referral is made.

7. Referral from WGOS 2 to Glaucoma Filtering (GF)

Clinical dataset

7.1. Administrative data:

7.1.1. Date of examination(s)

7.1.2. Date of referral

7.1.3. Patient identifiers: Full name, date of birth, address, postcode(& NHS number, if known)

7.1.4. Patient communication needs: Language, interpreter, accessible format

7.1.5. Referrer identifiers: Full name, practice name, practice address, practice postcode

7.2. Clinical investigations data:

7.2.1. Anterior segment assessment using stereoscopic slit lamp biomicroscopy and peripheral anterior chamber configuration and depth assessments, e.g. gonioscopy, the Van Herick test or OCT

7.2.2. Threshold-related central visual field plot(s) from an automated perimeter

7.2.3. IOP measurement using contact applanation tonometry[5] (including time)

[5] Slit-lamp mounted or hand-held contact applanation tonometer capable of measuring intra-ocular pressure indirectly by assessing the force needed to flatten a predetermined surface area of the cornea.

7.2.4. Macula and disc RNFL OCT, if available

7.2.5. Optic nerve assessment (including of optic disc including C/D ratio and neuroretinal rim status) and fundus examination using stereoscopic slit lamp biomicroscopy, with pupil dilatation if necessary, and OCT or optic nerve head image, if available

7.2.6. Pinhole acuity

7.2.7. RAPD check

7.2.8. Visual acuity / vision with current glasses

7.3. Additional data:

7.3.1. Working diagnosis

7.3.2. Other data as appropriate, for example relevant history, symptoms, medications and known risk factors

8. Referral from Glaucoma Filtering (GF) to Ophthalmology or Glaucoma Management (GM)

Clinical dataset

8.1. Administrative data:

8.1.1. Date of examination(s)

8.1.2. Date of referral

8.1.3. Patient identifiers: Full name, date of birth, address, postcode (& NHS number, if known)

8.1.4. Patient communication needs: Language, interpreter, accessible format

8.1.5. Referrer identifiers: Full name, glaucoma qualifications, practice name, practice address, practice postcode

8.2. Clinical investigations data:

8.2.1. Anterior segment assessment using stereoscopic slit lamp biomicroscopy and peripheral anterior chamber configuration and depth assessments using:

8.2.1.1. Van Herick peripheral anterior chamber depth assessment, plus:

8.2.1.2. Gonioscopy or anterior OCT

8.2.2. CCT

8.2.3. 24-2 testing protocol with SITA Standard algorithm

8.2.4. IOP measurement using contact applanation tonometry[6] (slit lamp mounted, including time)

8.2.5. Macula and disc RNFL OCT

8.2.6. Optic nerve assessment and fundus examination using stereoscopic slit lamp biomicroscopy, with pupil dilatation

8.2.7. Optic nerve head images (for example, a stereoscopic optic nerve head image or OCT)

8.2.8. Pinhole acuity

8.2.9. RAPD check

8.2.10. Visual acuity / vision with current glasses

8.3. Additional data:

8.3.1. Carer

[6] Slit-lamp mounted contact applanation tonometer capable of measuring intra-ocular pressure indirectly by assessing the force needed to flatten a predetermined surface area of the cornea.

8.3.2. Co-morbidity (ocular and/or systemic)
8.3.3. Driving
8.3.4. Drug allergies and intolerances
8.3.5. Ethnicity
8.3.6. Medications (topical and/or systemic)
8.3.7. Risk factors:
- 8.3.7.1. Blood loss
- 8.3.7.2. Blood transfusion
- 8.3.7.3. Diabetes
- 8.3.7.4. Family history of glaucoma
- 8.3.7.5. Ischaemic heart disease
- 8.3.7.6. Migraine
- 8.3.7.7. Raynaud's
- 8.3.7.8. Refraction (for example, hypermetriopia or myopia)
- 8.3.7.9. Smoking
- 8.3.7.10. Steroids (topical, inhaled, oral)
- 8.3.7.11. Trauma

8.3.8. Symptoms &/ functional impact, including impact on work
8.3.9. Working diagnosis
8.3.10. Previous treatment / management

9. Discharge from Ophthalmology to Glaucoma Management (GM)

Clinical dataset

9.1. Administrative data:
- 9.1.1. Date of examination(s)
- 9.1.2. Date of referral
- 9.1.3. Patient identifiers: Full name, date of birth, address, postcode, NHS number
- 9.1.4. Patient communication needs: Language, interpreter, accessible format
- 9.1.5. Discharger identifiers: Full name, role, Eye Unit Name, Eye Unit address, Eye Unit postcode

9.2. Diagnosis
9.3. Treatment
9.4. Next follow-up interval
9.5. Clinical investigations data:
- 9.5.1. CCT
- 9.5.2. Relevant IOPs (including time)
- 9.5.3. Description of visual fields and/or SITA 24-2 (plus GPA, if available)
- 9.5.4. Description of anterior segment assessment and peripheral anterior chamber configuration and depth assessments
- 9.5.5. Description of disc and/or Macula and disc RNFL OCT (with trend analysis of GCL, if available)
- 9.5.6. Pinhole acuity
- 9.5.7. Visual acuity / vision with current glasses

10. Referral from Glaucoma Management (GM) to Ophthalmology

Clinical dataset

10.1. As for *Referral from Glaucoma Filtering (GF) to Ophthalmology* dataset with the addition of:

10.1.1. Glaucoma Progression Analysis (GPA), if available

10.1.2. Trend analysis of ganglion cell layer (GCL), if available

and the alternative of:

10.1.3. Van Herick peripheral anterior chamber depth assessment if the clinical competencies of the GC optometrist do not include gonioscopy

11. WGOS4 Activity datasets

11.1. These are the responsibility of the contractor with the WGOS4 service agreement and must be submitted as part of the financial claim for each episode of care under WGOS 4.

11.2. Each claim for a WGOS 4 episode must include the following core dataset:

Data	*Why it is necessary*
WGOS4 Performer	Payment processing: to establish that a person qualified and listed for WGOS 4 performed the episode
Patient unique reference number – the contractor's unique identifier for this patient.	Post payment verification: to enable the contractor and PPV team to link the claim to the patient's clinical record
Patient name and address	PREMs: to administer PREMs centrally without practice involvement High-level service monitoring: access
Patient date of birth	High-level service monitoring: access
Patient ethnicity	High-level service monitoring: access
Patient eligibility & mobility– Clinical need identified and: Resident in Wales; and/or GP in Wales	Payment processing: to establish that the patient requires WGOS 4 as a practice-based or mobile service
Appointment type	MR, Glaucoma, HCQ/Chloroquine
Contact source – the source of the referral or discharge, e.g. specific source – optometry practice (name) or health board HES (name); broad source type (unnamed) – HCQ prescriber, intra-practice, private ophthalmology service, NHS England optometry practice, or NHS England eye unit	High-level service monitoring: capacity and quality
Contact date – the date the referral or discharge was received by the practice, or the date an intra-practice referral was made	High-level service monitoring: waiting times
Offer date –	High-level service monitoring: waiting times

the date of the appointment offered to the patient	
Appointment date – the date of the episode of care	High-level service monitoring: waiting times
Outcome – e.g. discharge; repeat; referral to HES; referral to non-clinical information, advice and support	Service evaluation: impact of WGOS 4

11.3. Additionally, each claim for a WGOS 4 Medical Retina or Glaucoma episode must include the following dataset:

Data	*Why it is necessary*
Next WGOS 4 date (if planned)	High-level service monitoring: demand and waiting times
Best binocular distance VA and certification status.	High-level service evaluation (EHNA) 1. Prevalence of certifiable vision impairment in Wales. 2. Population need 3. Patient access to services (WGOS3) link to numbers of patients accessing WGOS3. (a rule on forms that if VA equal to or worse than 6/60 then a note of whether certification has been offered to the patient)
Health Risk Factor – R1 – risk of irreversible harm or significant patient adverse outcome if target date is missed R2 – risk of reversible harm or adverse outcome if target date is missed R3 – no risk of significant harm or adverse outcome.	High-level service evaluation In line with HES data Comparison with HES data/allows for full eyecare pathway reporting in a uniform manner.

11.4. Additionally, each claim for a WGOS 4 Medical Retina episode must include the following dataset:

Data	*Why it is necessary*
Type of WGOS4 MR episode – Referral Filtering Management	High level service monitoring: Access and activity
Type of disease – Chorioretinitis Choroidal degeneration Degenerative myopia Diabetic maculopathy Diabetic retinopathy Dry AMD Hereditary retinal dystrophy Other Retinal vascular occlusions Wet AMD	High level service-user prevalence data (EHNA)

11.5. Additionally, each claim for a WGOS 4 Glaucoma episode must include the following dataset:

Data	*Why it is necessary*
Type of WGOS 4 Glaucoma episode – Referral Filtering Management	High level service monitoring: Access and activity
Type of disease – POAG Secondary glaucoma Closed angle glaucoma Glaucoma suspect OHT Other	High level service-user prevalence data (EHNA)

11.6. Additionally, each claim for a WGOS 4 HCQ episode must include the following dataset:

Data	*Why it is necessary*
Presenting data – The drug and prescribed The duration of prescription The presence or absence of additional risk factors The presence or absence of other known retinal conditions The presence or absence of previous HCQ toxicity	Evaluation of risk of HCQ/chloroquine toxicity. Evidence base for future service developments/change in criteria.
Classification data – No toxicity Possible toxicity Definite toxicity Monitoring not possible	Evaluation of risk of HCQ/chloroquine toxicity. Evidence base for future service developments/change in criteria.
Outcome data – No HES referral Refer to HES HCQ/chloroquine toxicity (possible/definite) Refer to HES other	Service effectiveness evaluation.

12. Equipment

12.1. The mandatory equipment required to perform WGOS 1&2 must be available in all settings where WGOS 4 Medical Retina and/or Glaucoma are delivered.
https://www.nhs.wales/sa/eye-care-wales/eye-care-docs/service-manual-wgos-1-2-pdf/
Additionally:

12.1.1. For WGOS 4 Medical Retina: fundus photography instrument (e.g. fundus camera), OCT and slit-lamp mounted contact applanation tonometer[7] is required.

12.1.2. For WGOS 4 Glaucoma Filtering: OCT, visual field analyser capable of 24-2 testing protocol with SITA Standard algorithm, pachymeter, goniolens or anterior OCT, and slit-lamp mounted contact applanation tonometer[7] are required.

12.1.3. For WGOS 4 Glaucoma Management: OCT (including anterior OCT), visual field analyser capable of 24-2 testing protocol with SITA Standard algorithm, pachymeter, and slit-lamp mounted contact applanation tonometer[7] are required. Goniolens *or* anterior OCT is required for use by GD and GH optometrists; it is optional for use by GC optometrists.

12.2. For WGOS 4 HCQ the mandatory equipment required in all settings is: spectral domain OCT (SD-OCT), fundus autofluorescence (FAF) and automated visual field instrument capable of both 10-2 and 30-2 are required.

[7] Capable of measuring intra-ocular pressure indirectly by assessing the force needed to flatten a predetermined surface area of the cornea.

WGOS 4 equipment at-a-glance:

Equipment	MR Filtering	MR Monitoring	Glaucoma Filtering	Glaucoma Monitoring	Hydroxychloroquine Monitoring
All mandatory from WGOS 1+2	X	X	X	X	
Retinal imaging instrument	X	X			
OCT	X	X	X	X	
Slit-lamp mounted contact applanation tonometer	X	X	X	X	
Visual field analyser capable of 24-2 testing protocol with SITA Standard algorithm			X	X	
Pachymeter			X	X	
Gonionlens Or Anterior OCT			X	Only for optometrists working at GH or GD level	
SD-OCT					X
FAF					X
Automated visual field instrument capable of both 10-2 and 30-2					X

13. Minimum activity

13.1. The Health Board will expect a minimum activity capacity from a Contractor delivering WGOS 4 service(s).

13.2. The minimum level of availability is agreed nationally, although a Health Board does have the ability to deviate from that minimum capacity activity level, where agreed with the ROC at Eye Care Collaborative Group.

13.3. The national minimum activity capacity is zero episodes per month, per WGOS 4 service provided by a practice.

13.4. Health Boards may withdraw approval for service provision from WGOS 4 optometry practices which fail to meet any mandatory requirements and/or which do not comply with the WGOS 4 manual.