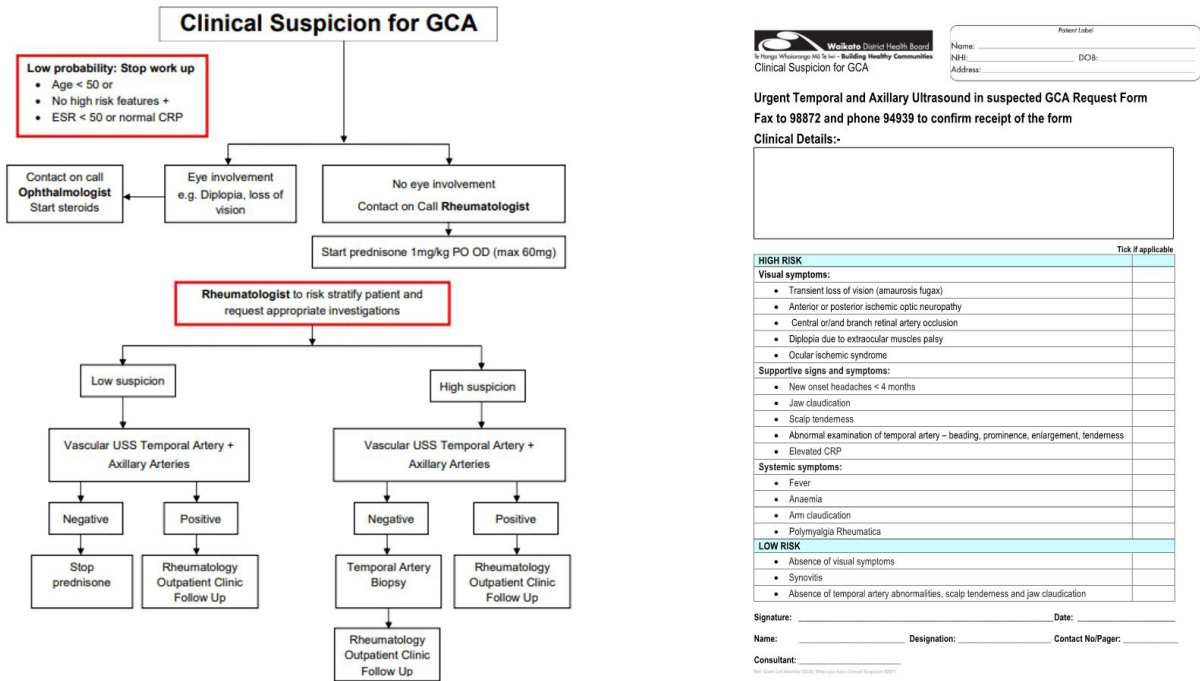
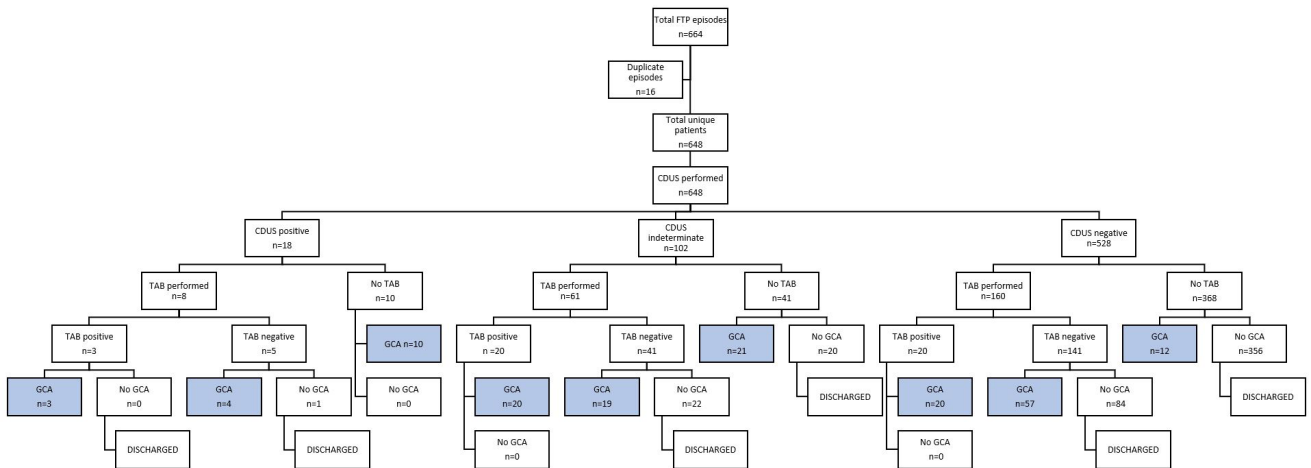


Figure 1: The protocol for the GCA fast-track pathway at Waikato Hospital, Aotearoa New Zealand.



NB: GCA = giant cell arteritis; ESR = erythrocyte sedimentation rate; CRP = C-reactive protein; PO = oral; OD = daily; USS = ultrasound scan.

Figure 2: Flowchart of patients through the Waikato Giant Cell Arteritis fast-track pathway.



NB: FTP = fast-track pathway; CDUS = colour Doppler ultrasound; TAB = temporal artery biopsy; GCA = giant cell arteritis.

Table 1: Clinical characteristics of patients in the fast-track pathway.

	FTP (n=648)
Ethnicity no. pts (%)	
European	553 (85.3)
Māori	63 (9.7)
Pacific peoples	7 (1.1)
Asian	9 (1.4)
MELAA	4 (0.6)
Other	10 (1.5)
Not stated	10 (1.5)
Total	(101.1)
Clinical features	
Days of symptoms—median (IQR)	14.0 (6–30)
Symptoms—no./valid no. (valid %)	
Headache (any)	565/617 (91.6)
Headache (unilateral)	288/617 (46.7)
Scalp sensitivity	278/461 (60.3)
Jaw claudication	162/486 (33.3)
Visual symptoms (any)	219/488 (44.9)
Typical visual symptoms (AION, PION, CRAO)	21/648 (3.2)†
Diplopia	20/648 (3.1)†
PMR symptoms	171/375 (45.6)
Temporal artery abnormality†	252/392 (64.3)
Laboratory features—no./valid no. (valid %)	
Haemoglobin g/L	
<115 (women)	66/426 (15.5)
<130 (men)	65/176 (37.0)
Platelets >400 (%) x10 ⁹ /L	101/616 (16.4)

Table 1 (continued): Clinical characteristics of patients in the fast-track pathway.

ESR mm/hour	
mean (SD)	30.6 (26.5)
median (IQR)	23.5 (10–41)
CRP mg/L	
mean (SD)	40.9 (66.0)
median (IQR)	10.0 (2.5– 53.0)
ACR 2022 criteria score—no. (%)	
6 or more	365/638 (57.2)
Less than 6	273/638 (42.8)
Risk using Ing risk score¹⁶ n. pts (valid %) n=503	
Very low <2.7%	37/503 (7.4)
No. with GCA (% of risk group)	2 (5.4)
Low <7, 2.7%	152/503 (30.2)
No. with GCA (% of risk group)	10 (6.6)
Moderate <23, 7.0%	171/503 (34.0)
No. with GCA (% of risk group)	34 (19.8)
High <43, 23.0%	69/503 (13.7)
No. with GCA (% of risk group)	30 (43.5)
Very high ≥43%	74/503 (14.7)
No. with GCA (% of risk group)	53 (71.6)

FTP = fast-track pathway; MELAA = Middle Eastern, Latin America, African; IQR = interquartile range; AION = anterior ischaemic optic neuropathy; PION = posterior ischaemic optic neuropathy; CRAO = central retinal artery occlusion; PMR = polymyalgia rheumatica; ESR = erythrocyte sedimentation rate; CRP = C-reactive protein; ACR = American College of Rheumatology; GCA = giant cell arteritis.

†Temporal artery abnormality—either decreased pulse or tenderness.

‡% calculated as number of typical symptoms out of the total number of patients in this pathway, rather than the number of variables collected.

Table 2: Sensitivity and specificity of colour Doppler ultrasound compared to different reference standards.

Reference	Sensitivity	Specificity	Positive predictive value	Negative predictive value
	% (95% confidence interval)			
Clinical diagnosis	10.3 (6.3–15.5)	99.8 (99.1–100)	94.4 (77.7–99.7)	76.5 (73.1–79.7)
Temporal artery biopsy	7.1 (1.8–17.5)	97.3 (94.3–99.0)	37.5 (11.0–71.0)	82.4 (77.0–87.0)
ACR 2022 criteria ≥ 6	4.7 (2.8–7.1)	99.6 (98.4–100.0)	94.4 (77.7–99.7)	43.9 (40.0–47.8)

ACR = American College of Rheumatology.

Table 3: Meta-analyses on the performance of colour Doppler ultrasound in GCA.

Study		Sensitivity (%)	Specificity (%)
Clinical diagnosis as reference standard			
Duftner 2018 ³		77	96
Sebastian 2021 ⁴		67	95
Moreel 2023 ⁵		80	95
	(including large vessels)	95	96
Nakajima 2023 ⁶		76	93
	(including axillary arteries)	86	95
Temporal artery biopsy as reference standard			
Karassa 2005 ⁷		69	82
Duftner 2018 ³		70	84
Rinagel 2019 ⁸		68	81
Sebastian 2021 ⁴		63	90
ACR criteria 1990 as reference standard			
Karassa 2005 ⁷		55	94
Arida 2010 ⁹		68	91
Current study			
	Clinical diagnosis	10.3	99.8
	Temporal artery biopsy	7.1	97.3
	ACR 2022 criteria	1.3	90.0

GCA = giant cell arteritis; ACR = American College of Rheumatology.