ANNEX 2 – Betsi Cadwaladr Health Board review

There are four sites in BCU that provide inpatient and daycase elective orthopaedic surgery: Abergele (AG), Wrexham Maelor (WM), Ysbyty Glan Clwyd (YGC) and Ysbyty Gwynedd Bangor (YGB). Of these three are acute (WM, YGC and YGB) with the remaining AG being the only unit able to truly provide a ring-fence that satisfies NCSOS option 2. There are currently no dedicated daycase units. All day surgery is provided through the same theatres as inpatient on all four sites and therefore derogates from the principles of the NCSOS blueprint.

- AG is dedicated to elective Orthopaedic surgery. It currently has two laminar flow inpatient theatres that provide 20 sessions through 24 beds. This is split between DC and IP currently.
- YGC provides for more complex patients through three protected beds and six theatres sessions. Day one post-op the patients are transferred to Abergele for step down.
- WM provides 24 elective theatre sessions, all laminar flow and used for a mix of inpatient and daycase.
- YGB currently has 16 protected beds and 24 elective theatres sessions, all laminar flow and mixed for IP and DC but at present there is nil activity due to unscheduled care pressures.

The current capacity is detailed in Fig 1. This meets the 0% model for demand. Accepting assumptions, the Consultant workforce is adequate, and could deliver more than 0% model in all subspecialties if theatre estate allowed (which it does not currently).

Current/Actual									
	Total Demand	Consultant Capacity	Abergele	Bangor	YGC	Wrexham	RTC	Total	Available Capacity
Daycase Capacity			**10**			**12**		**22**	
S&E (109%)	5.90	5.9	5.9						
H&W (184%)	7.64	7.65	4			2.7			
Hip (170%)	0.27	0.28	0.28						
Knee (155%)	4.53	4.5				4.5			
F&A (237%)	3.82	3.8				3.8			
Total	22.18	22.13	10.18			11		22.2	
Inpatient Capacity			**10**	**0**	**6**	**12**		**28**	
S&E	1.47	1.48				1.48		1.48	
H&W	0.03	0.04				0.04		0.04	
Hip	15.26	15.3	5.3					15.3	
Hip LVHC	2.07	2.1			2.1			2.1	
Knee HVLC	15.97	16	5			11		16	
Knee LVHC	2.48	2.5			2.5			2.5	
F&A	0.30	0.31				0.31		0.31	
Total	**37.61**	**37.73**	**10.3**	**0**	**4.6**	**12.83**		**27.73**	

BCU Fig 1. Current Capacity

The BCU declared strategy is still in formulation. There is ongoing discussion regarding the role of the RTCs. However, there is increasing commitment to develop Abergele into an elective orthopaedic hub with two additional modular laminar flow theatres. The main discussion points currently are whether this should be for HVLC only or also be specified for LVHC. The health board directorate are also intended to recover back to pre-pandemic levels of theatre on the acute sites, but it is not clear what case mix will occupy these acute site sessions.

The NCSOS preferred option 4 for BCU is very clear. Abergele should be developed into a centre of excellence providing HVLC and LVHC, but modelling suggested 5-6 theatres being required as opposed to the current proposal of 4. If this is achieved, the acute sites could be used for daycase, to minimise the risk of acute site inpatient pressures, and ensuring local care for the population of north wales for non-complex day surgery. This will require all three orthopaedic teams from each acute site to work together as a network of subspecialties, all benefiting equally from the AG hub site. The only caveat being that the NCSOS supports the role of YGC continuing to provide a small protected bed unit for very complex medical and surgical pts e.g. needing dialysis, vascular support etc. The health board daycase delivery network strategy is unclear. Therefore, all modelling below is based on a hybrid of health board inpatient plans, but merged with NCSOS recommended daycase delivery network configuration.

Fig. 2 & 3 below demonstrate that with the health board proposed inpatient configuration, merged with the NCSOS daycase delivery network, the 10% & 20% arthroplasty above demand models can be achieved. There is some fragility as it still relies on six sessions on an acute site (YGC). Accepting workforce assumptions, there is enough Consultant capacity to deliver this.

Another consideration identified in NCSOS 3 is the need to repatriate work from NHSE and increasing the service to Powys Health Board. This would as a minimum require an additional eight inpatient sessions per week.

NCSOS proposed									
	Total Demand	Consultant Capacity	Abergele	Bangor	YGC	Wrexham	RTC	Total	Available Capacity
Daycase Capacity				**10**	**10**	**10**		**30**	
S&E	5.90	5.9		5.9					
H&W	7.64	7.65			7.7				
Hip	0.27	0.28		0.3					
Knee	4.53	4.5				4.5			
F&A	3.82	3.8				3.8			
Total	22.18	22.13		6.2	7.7	8.3		22.2	
Inpatient Capacity			**40**	**0**	**6**	**0**		**46**	
S&E	1.47	1.48	1.5						

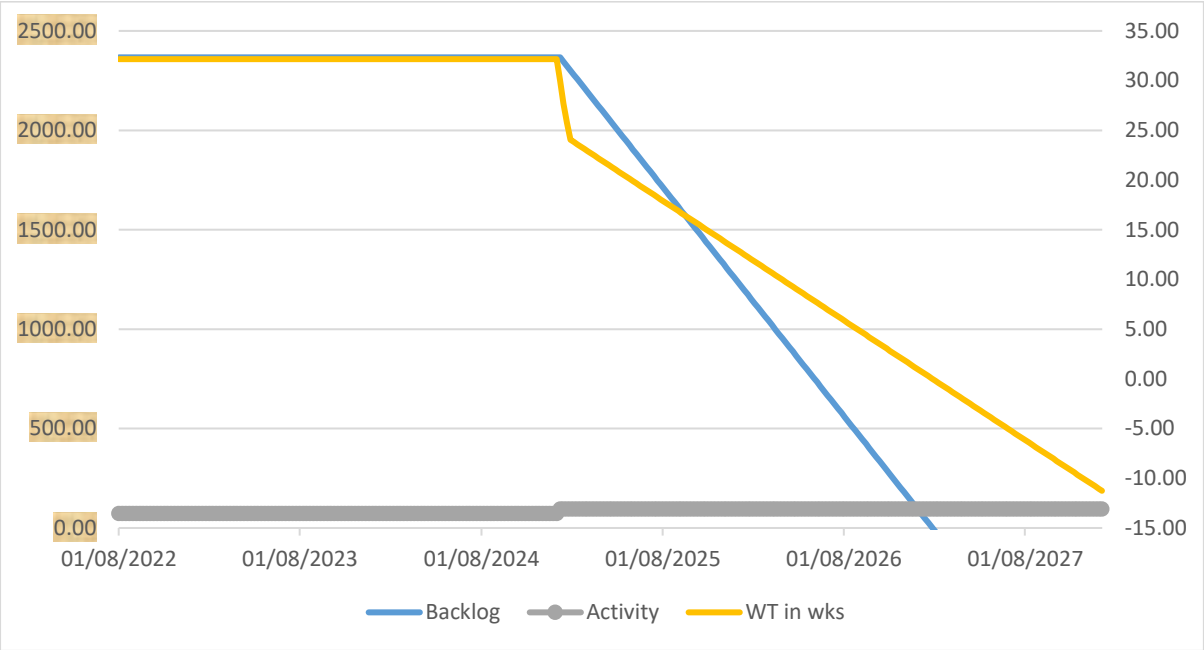
H&W	0.03	0.04	0.04						
Hip	15.2	15.3	15.3						
Hip LVHC	2.07	2.1	2.1						
Knee HVLC	15.9	16	16						
Knee LVHC	2.48	2.5	2.5						
F&A	0.30	0.31	0.3						
Total	**37.61**	**37.73**	**37.74**					**37.74**	

BCU Fig 2. HB/NCSOS merged proposed configuration against 0% model

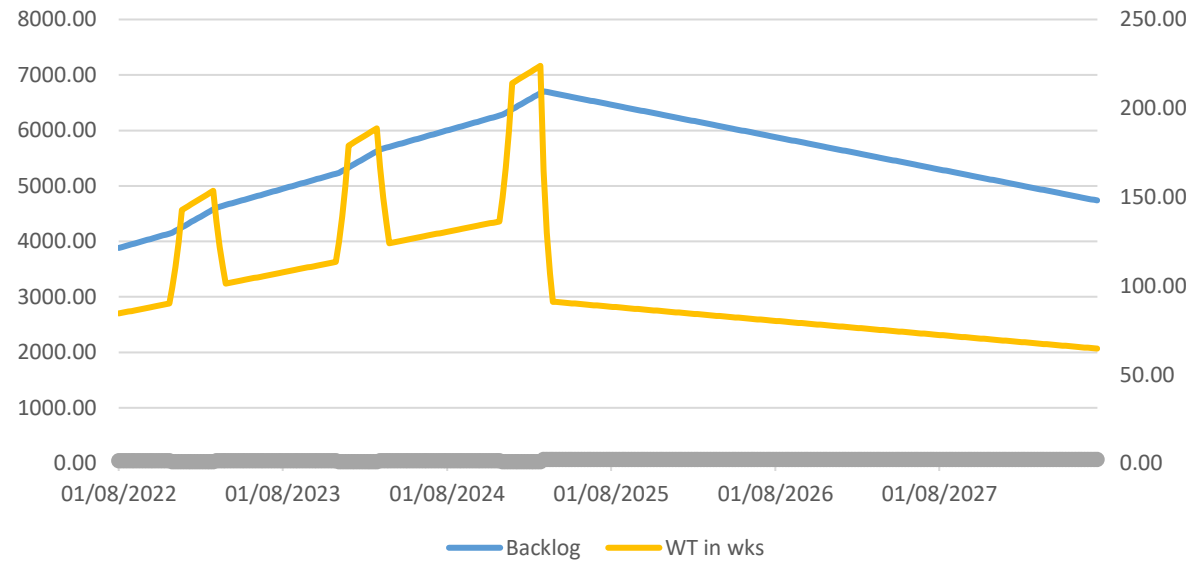
NCSOS proposed to meet target									
	Total Demand	**Consultant Capacity**	**Abergele**	**Bangor**	**YGC**	**Wrexham**	**RTC**	**Total**	**Available Capacity**
Daycase Capacity				**10**	**10**	**10**		**30**	
S&E	6.49	6.4		6.4					
H&W	8.40	8.4			8.4				
Hip	0.30	0.3		0.3					
Knee	4.98	5				5			
F&A	4.20	4.2				4.2			
Total	24.40	24.3		6.7	8.4	9.2		24.3	
Inpatient Capacity			**40**		**6**			**46**	
S&E	1.62	1.48	1.6						
H&W	0.04	0.04	0.04						
Hip	18.31	18.3	18.3						
Hip LVHC	2.27	2.1			2.1				
Knee HVLC	19.16	16	19						
Knee LVHC	2.73	2.5			2.7				
F&A	0.33	0.31	0.3						
Total	**44.50**	**40.73**	**39.24**					**39.24**	

BCU Fig 3. NCSOS 10% model all sub specs except HVLC hip and knee – 20%

Fig. 4 |& 5 below demonstrate the day surgery and inpatient backlog projections respectively, with the current state developing into the strategic state, with modelling for winter acute site bed pressures. This assumes that the two additional AG theatres can be commissioned by 2025. It also assumes nil further capacity is commissioned on acute sites to mitigate whilst waiting for the strategic model to operationalise. The day surgery is not affected by inpatient bed pressures, hence with the current estate can meet a 0% model. The inpatient backlog will deteriorate due to lack of theatre estate combined with winter bed pressures, with nil possibility in this configuration, of addressing the backlog.



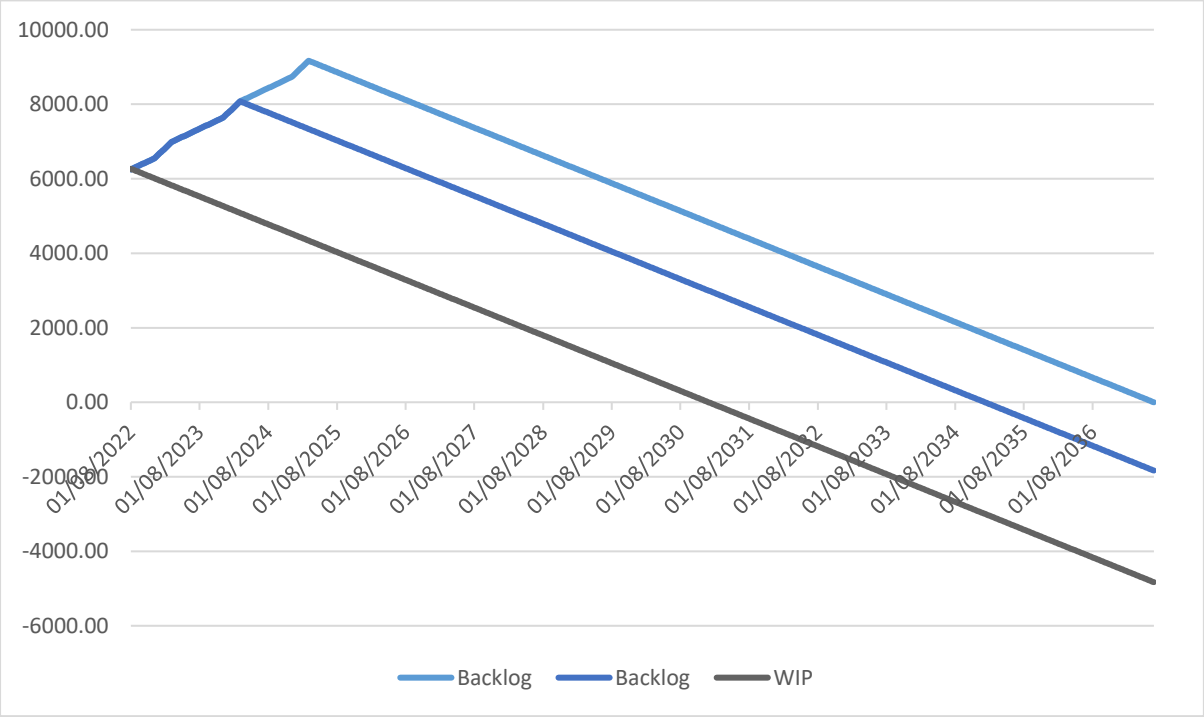
BCU Fig 4. Day Surgery current state



BCU Fig. 5 Inpatient current state

With the HB proposed additional theatres in AG however, the day surgery waiting list can be removed in 2026. It will take until 2036 for the IPWL to clear through meeting the 10% and 20% demand models for the relevant subspecialties as per NCSOS 3. (Fig. 6.). This prolonged correction is due to the deterioration of the waiting list whilst waiting for the AG development. Mitigations will need to be imparted such as temporary enhanced acute site inpatient ring-fenced capacity in YGB, YGC and WM.

BCU Fig 6. Combined day surgery and inpatient backlog projection with 10-20% model.



BCU Fig 7. Projections with Abergele theatres being implemented now, 2024, 2025

BCU reports frailties in interdependency workforce required to operationalise their strategy, particularly within anaesthetics, theatre and nursing staffing.