2020 Vision - Welsh Orthopaedic Society Survey: a snapshot survey of Trauma & Orthopaedic services in Wales.

Contents

Introduction

There are many in the Trauma & Orthopaedic community in Wales who are not satisfied with the current level of service we provide. Prior to the Covid challenge, many surgeons in the Society do not believe that they were working efficiently; that they are hamstrung by many local factors resulting in institutional inertia.

At a scoping meeting in November 2019 a National survey of current Trauma and Orthopaedic Services was proposed and the dataset for the three elements of a survey was agreed; Manpower survey, Clinical Service survey and Clinical Governance survey. Each acute hospital in Wales has at least one Welsh Orthopaedic Society (W.O.S.) representative who collected the local data which was then collated by the Society. There are those who may criticise the dataset; we would welcome constructive suggestions.

The aim of the '2020 Vision - Welsh Orthopaedic Society Survey', is to firstly know where we are as a service at this moment in time. It is a snapshot. In interpreting this information, one should ask how reasonable is it? Those who read this survey, particularly those not in frontline clinical practice should try to authenticate, validate and evaluate its content.

As a result of the way change happens in NHS Wales, it is recognised that as a single observation, the results of the survey may be considered out of date by the time they are considered by the decision makers, especially in view of changes in service as a result of the Covid pandemic. By its very nature it is recognised as being a dry document. It is the hope of the Society that this brief snapshot report, could, in some small way inform what in essence will unfortunately be a political discussion.

It is the ambition of the Society that the survey results could be used as a reliable baseline source for meaningful remedial discussions, both locally and indeed nationally; to bring T&O services in NHS Wales to a level that individual surgeons can be proud.

The authors are more than happy to be corrected in any errors made; it indicates that the detail has been examined and a better snapshot will be obtained.

Summary of main observations

There are 172 T&O Consultants in Wales, an average of one per 18,1330 population. 7% are female and 97.1% work full time. 4 (2.3%) have academic positions.

The spread of subspecialty interest has been calculated in detail and bears no relationship to the demand and shows a significant variation throughout current Health Board configuration in Wales.

129 (75%) of consultants are on call for unscheduled trauma care. There is a huge variation between Health Boards as to the number of population per on call consultant.

There appears to be no consistency in terms of trauma list provision. The provision of weekend trauma lists is of particular concern in a small number of outlier units.

There are two hospitals where there is no dedicated radiographer allocation to a trauma list.

All hospitals except one who replied, have physiotherapy attendance at weekends to a variable degree. All hospitals except one have an Occupational Therapist allocated to the trauma service; this person may be a shared with another service. At least five hospitals have no formal Social Worker attachment to the trauma service

At least 3 hospitals have no Orthogeriatric service ward rounds during the week; no hospitals report having the service at weekends.

Two hospitals have no anaesthetic lead for trauma and there are at least two Trauma departments who have no Surgical lead for trauma.

The inpatient trauma bed provision is extremely variable and bears no relationship to the service demand. The service in outlying units has the potential to be compromised.

Despite the duties placed upon them within the Civil Contingencies Act 2004 Category 1 bodies such as the NHS hospitals receiving trauma in Wales, it is noted that one hospital had T&O service department involved in a Major Incident Plan over three years ago. No other department in Wales has been involved in planning or exercise.

The spread of elective inpatient beds ranges from 14 to 67 in individual hospitals.

Within Wales there is only one hospital where physiotherapy service is available after 4pm to aid in the discharge of the increasing number of day-case patients. We have not tried to quantify the number of patients admitted overnight as a result of this deficit.

A lack of in-house data available in each hospital relating to elective service provision means that most departments do not know the frequency and number of referrals, the numbers seen, and rely on National Joint Register or Surgical Site Infection to approximate number of cases performed.

There are areas in Wales where there isn't enough clinical space for the current number of clinicians. This coupled with the limited access to theatre sessions are the main limiting steps to the appointment of new colleagues in order to service increasing demand.

There is no effective elective service strategy in a number of Health Boards.

In many hospitals it is not considered standard practice for the non-clinical administrative colleagues to meet the consultants as a group. There are only two hospitals, in one Health Board, where there are regular meetings of the Trauma & Orthopaedic consultant body.

Excluding daily trauma meetings, throughout NHS Wales, T& O surgeons do not have formal meetings with the anaesthetic service; indeed, there are no regular meetings with Emergency Department colleagues, paediatric or rheumatology colleagues.

The survey concludes that in every hospital that replied, M&M cases are discussed at each meeting. There are at least two hospitals where clinical risk management is not discussed at each meeting. The survey concludes that in virtually every hospital audits or surveys are presented et most meetings. In five of ten hospitals it is believed that the quality of audit and subject surveyed results in informing change. The survey reports that there are four hospitals where complaints / litigation are discussed at each meeting. There are five departments where they are discussed 'as required.' Only two of ten hospitals who replied to this section reported that they have a formal departmental mechanism to review all policies used. Review of prophylactic antibiotic and chemical DVT prophylaxis protocols showed more variation than expected.

Manpower

Consultant Workforce

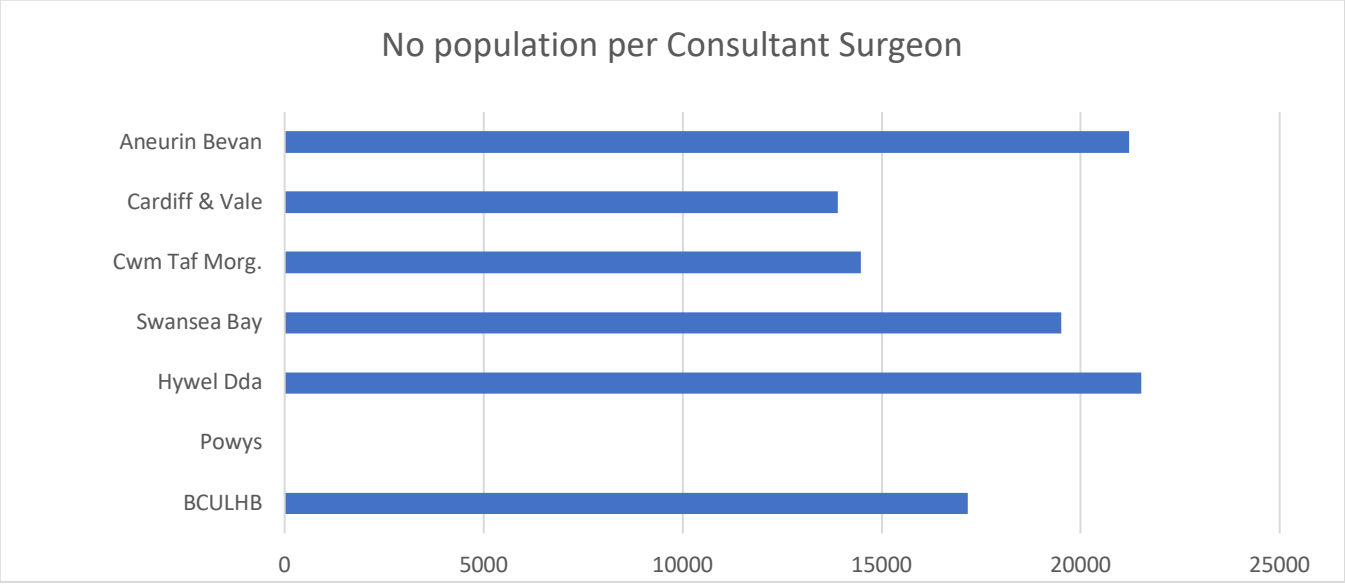
In 2010 the BOA British Orthopaedic Association recommended a consultant workforce ratio of 1 : 15,000 population, to be achieved by 2020. There was an interim target of 1 : 20,000 population by 2015. Such a ratio would match the European mean. Some may question the number of surgeons to a unit of population a flawed target as the tendency to subspecialise has increased at pace since 2010 when the BOA targets were set? Is there a better metric?

In 2018 Stat Wales reported the summation of Health Board populations in Wales to be 3,152,879. (The reference for a Welsh population of 3,230,490 on 1st July 2020 is UKpopulation.org. – For calculations the Stat Wales figure will be used as it is the latest to provide a breakdown per Health Board.) The total number of consultants reported in Wales in this survey is 172. Which equates to an overall average of 1 consultant per 18,330 of Welsh population.

In 2004 the ratio was 1 per 34,258 (www.parliament.uk).

Using the most recently available Health Board population figures produced by Stat Wales in 2018 and the survey returns in 2020 the following observations have been made. It is tempting to report per hospital catchment area; however, the lines of demarcation are not always clear and strategic asset allocation is currently provided by Health Boards.

Health Board	Health Board Population (Stat Wales 2018)	Number of Consultants	Ratio of consultant to population
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.1%)	39	1 : 17,168
Powys Health Board– no DGH	132,435 (4.2%)	0	X
Hywel Dda UHB – 3 hospitals	387,284 (12.2%)	19	1 : 20,383
Swansea Bay UHB	390,308 (12.3%)	20	1: 19,515
Cwm Taf Morgannwg UHB	448,639 (14.8%)	31	1 : 14,472
Cardiff & Vale UHB	500,490 (15.8%)	36	1 : 13,902
Aneurin Bevan UHB – 2 hospitals	594,164 (18.8%)	28	1 : 21,220
Wales	**3,152,879 (100%)**	**172**	**1:18,330**



Overall age distribution of replies is as follows:

< 40 years	12%
In their 40's	39%
In their 50's	39%
60 and over	10%

It is noted that while there are some 'young departments' overall in Wales, there are Health Boards where there is the possibility of many experienced personnel will likely retire within a narrow timeframe. This has potential for succession planning challenges with many departments looking in the same cohort for new colleagues.

It is interesting to note that of the total number of consultants just over 7 % are female.

The working week

97.1 % of consultants are working full time, i.e. doing 10 (3.75hr) sessions or more. This includes DCC Direct Clinical Care sessions and the less easily defined and validated SPA Supporting Professional Activity sessions. Job Plans:

Despite the Amendment to the National Consultant Contract in Wales (WAG 2004), is it noted that in NHS Wales there is significant spread in the level of compliance with respect to job plans. It is not the function of the Society to comment on the spread of DCC and SPA sessions, or the probity, veracity, equality or consistency of the job planning process across different hospital departments and indeed, the various Health Boards across Wales

The survey replies suggest:

- Apart from the title of honorary clinical lecturer, 4 (2.3%) have academic positions.
- 93 (54 %) are involved in independent practice.

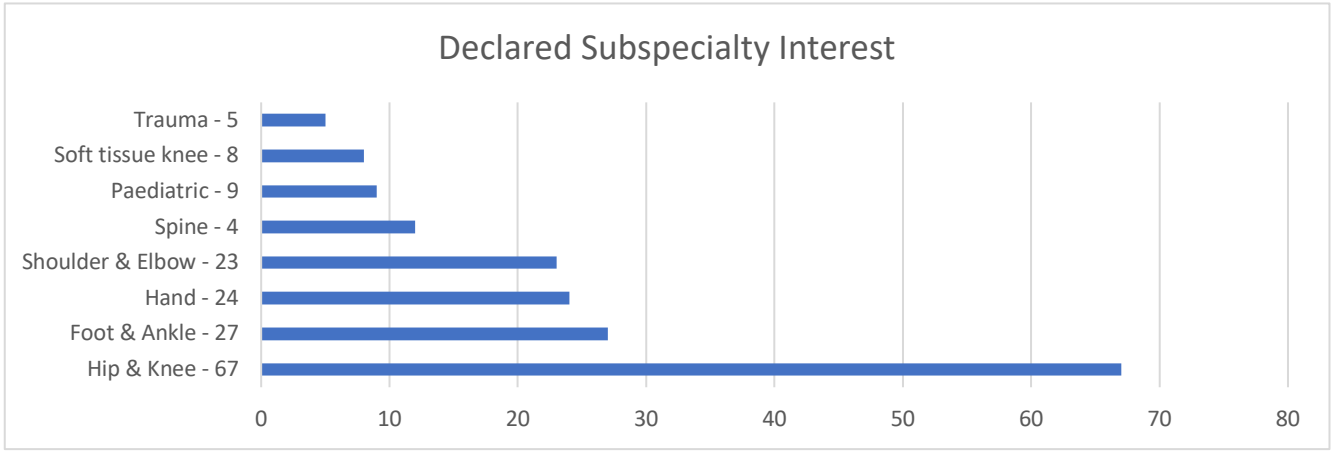
The authors are not aware of any central manpower planning with regard to the overall T&O consultant provision across NHS Wales. We cannot find any guidance / plan regarding the ratio of the different subspecialty provision but would appreciate correction.

Subspecialisation

In the last 2 decades there has been an increasing tendency to subspecialise. While this has its merits for elective service delivery, it is to be acknowledged that subspecialty interest is not all it seems for the trauma on call surgeon. For those trainees who have subspecialised for the couple of years before consultant appointment, it is unlikely that they have managed trauma in parts of the body in which they have not subspecialised. It is likely therefore that newly appointed consultants will likely require an additional degree of oversight on appointment.

The survey indicates that some surgeons are interested in one or more of the listed categories and therefore, as expected the number of subspecialty surgeon interests will exceed the total number of consultants in the survey. Some HB's have a higher proportion of "generalists" with one HB having almost 20% of the consultant body being designated as generalists with a declared minor specialist interest and 40% of all replies having an interest in Hip, Knee or Hip and Knee presentations.

One must appreciate that in some instances an element of sub specialist interest e.g. hands, Shoulder and elbow, foot and ankle will comprise a very small proportion of the individual consultant practice and the proportion of sub specialist surgeons per head of population should be interpreted with caution.



Hip and knee surgeons *per unit of population 65y and over* suggests the following:

Health Board	Health Board population aged 65 and over Health Stat Wales 2018	Hip, Knee and Hip & Knee surgeons in Health Board	Hip and / or knee surgeon per unit of population over 65
Betsi Cadwaladr ULHB	163,213,	13	1 per 12,554
Powys Health Board	36,376	0	X
Hywel Dda ULHB	96,015	11	1 per 8,728
Swansea Bay ULHB	78,701	7	1 per 11,243
Cwm Taf Morgannwg ULHB	87,894	13	1 in 6,761
Cardiff & Vale ULHB	80,539	12	1 per 6,711
Aneurin Bevan ULHB	119,638	15	1 per 7,975
Wales	**662,376**		

One must appreciate that these observations exclude the hip and knee surgery demand on younger patients but is an illustration for those planning to reboot an effective elective service in Wales, where many on the waiting list for surgery are awaiting hip or knee replacement.

Hand surgeons per unit of Health Board population regardless of age suggests the following:

Health Board	Health Board Population (Stat Wales 2018)	Hand surgeons per Health Board	Hand surgeon per unit of total Health Board population
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.2%)	6	1 per 111,593
Powys Health Board– no DGH	132,435 (4.2%	0	X
Hywel Dda – 3 hospitals	387,284 (12.2%)	4	1 per 96,821
Swansea Bay ULHB	390,308 (12.3%)	3	1 per 130,102
Cwm Taf Morgannwg ULHB 3 hospital	448,639 (14.2%)	6	1 per 74,773
Cardiff & Vale UHB	500,490 (15.8%)	4	1 per 125,122
Aneurin Bevan ULHB – 2 hospitals	594,164 (18.8%)	4	1 per 148,541

Shoulder surgeons per unit of health Board population regardless of age, suggests the following:

Health Board	Health Board Population (Stat Wales 2018)	Shoulder surgeons per Health Board	Shoulder surgeon per unit of total Health Board population
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.2%)	5	1 per 133,911
Powys Health Board– no DGH	132,435 (4.2%	0	X
Hywel Dda – 3 hospitals	387,284 (12.2%)	4	1 per 96,821
Swansea Bay ULHB	390,308 (12.3%)	2	1 per 195,154
Cwm Taf Morgannwg ULHB 3 hospital	448,639 (14.2%)	5	1 per 89,729
Cardiff & Vale UHB	500,490 (15.8%)	4	1 per 125,122
Aneurin Bevan ULHB – 2 hospitals	594,164 (18.8%)	4	1 per 148,541

Foot and Ankle surgeons per unit of Health Board population regardless of age, suggests the following:

Health Board	Health Board Population (Stat Wales 2018)	Foot & Ankle surgeons per Health Board	Foot and ankle surgeon per unit of total Health Board population
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.2%)	7	1 per 95,651
Powys Health Board– no DGH	132,435 (4.2%	0	X
Hywel Dda – 3 hospitals	387,284 (12.2%)	3	1 per 129,094
Swansea Bay ULHB	390,308 (12.3%)	4	1 per 97,557
Cwm Taf Morgannwg ULHB 3 hospital	448,639 (14.2%)	4	1 per 112,159
Cardiff & Vale UHB	500,490 (15.8%)	5	1 per 100,098
Aneurin Bevan ULHB – 2 hospitals	594,164 (18.8%)	4	1 in 148,514

Evaluation of the demand and service of the spinal surgeons has not been undertaken.

Elective Scheduled care Beds

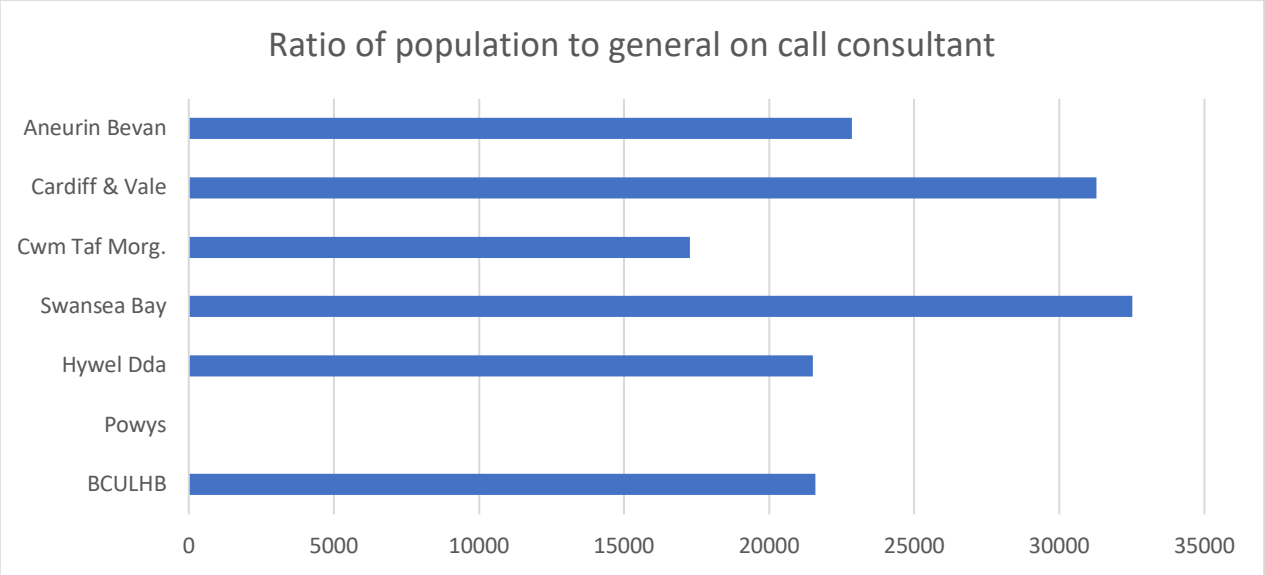
The range of adult elective inpatient beds is from 16 to 67. The allocation would not appear to have a relationship to the elective service demand or waiting list numbers.

The range of dedicated day case beds for elective surgery is from 0 to 12. One hospital has a share of beds in a 42 bed day case unit and some hospitals have only very limited access to days surgical beds.

Trauma & Orthopaedic Services throughout Wales - Unscheduled Trauma care

The number of consultants who do general on call for trauma is 129 i.e. 75 %. It is understood that in Cardiff individuals are on call for hand trauma or spinal trauma only and therefore the figure of 16 (resulting in a high ratio) may not be a direct comparator*. The on-call frequency varies from 1 in 3 to 1 in 16.

Health Board	Health Board Population (Stat Wales 2018)	Number of General on call Consultants	Ratio of one on call consultant to population
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.2%)	31	1 : 21,598
Powys Health Board– no DGH	132,435 (4.2%	0	X
Hywel Dda – 3 hospitals	387,284 (12.2%)	16	1 : 24,205
Swansea Bay ULHB	390,308 (12.3%)	12	1 : 32,525
Cwm Taf Morgannwg ULHB 3 hospital	448,639 (14.2%)	26	1 : 17,266
Cardiff & Vale UHB	500,490 (15.8%)	16* Excl.hand & Spine	1 : 31,280 *
Aneurin Bevan ULHB – 2 hospitals	594,164 (18.8%)	26	1 : 22,852



In calculating the population for trauma demand it is important to include the significant increase in population during holiday periods. There does not appear to be a consensus as to how to do this. Examination of the calculation by other public service bodies in Wales may be insightful.

Trauma list provision

There appears to be no consistency in terms of trauma list provision.

Of responses received, there is one hospital in Wales that have no dedicated weekend trauma lists, another has one, while another has access to a dedicated trauma theatre ‘ad hoc’ at weekends.

Hospital	W'day Lists (half day)	W'end lists (half day)
Ysbyty Gwynedd	10	4
Ysbyty Glan Clwyd	10	4
Wrescam Maelor	10	2
Bronglais, Aberystwyth	Insufficient data	Insufficient data
Withybush, Haverfordwest	4	0
Glangwili, Carmarthen WWW	10	1
Morriston/Singleton, Swansea	Insufficient data	Insufficient data
Princess of Wales, Bridgend	8	0
Royal Glamorgan	5	1
Prince Charles, Merthyr	5	Ad hoc
Univ. Hosp. Wales	24.5	6
Royal Gwent Newport	10	3
Nevill Hall	7	2

Dependent supporting services

There are two hospitals where there is no dedicated radiographer allocation to a trauma list.

All hospitals who replied, have physiotherapy attendance at weekends to a variable degree. All hospitals have an Occupational Therapist allocated to the trauma service; this person may be a shared with another service.

At least four hospitals have no formal Social Worker attachment to the trauma service

At least 3 hospitals have no Orthogeriatric service ward rounds during the week; no hospitals report having the service at weekends.

Two hospitals have no anaesthetic lead for trauma and there are at least two Trauma departments who have no Surgical lead for trauma.

Trauma bed provision

The following is the number of trauma beds reported in each hospital:

Hospital	No Adult Trauma beds
Ysbyty Gwynedd	26
Ysbyty Glan Clwyd	24
Wrescam Maelor	31
Bronglais, Aberystwyth	28
Withybush, Haverfordwest	14 (28 for both T&O)
Glangwili, Carmarthen WWW	30
Morriston/Singleton, Swansea	78
Princess of Wales, Bridgend	29
Royal Glamorgan	
Prince Charles, Merthyr	24
Univ. Hosp. Wales	76
Royal Gwent Newport	52
Nevill Hall	35
Wales	

The number of beds per unit of population in each Health Board is as follows:

Health Board	Health Board Population (Stat Wales 2018)	No Trauma beds	Number of total population per adult trauma bed
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.2%)	81	8,266
Powys Health Board– no DGH	132,435 (4.2%	0	
Hywel Dda – 3 hospitals	387,284 (12.2%)	72	5,378
Swansea Bay ULHB	390,308 (12.3%)	78	5,003
Cwm Taf Morgannwg ULHB 3 hospital	448,639 (14.2%)	81	5,538
Cardiff & Vale UHB	500,490 (15.8%)	76	6,585
Aneurin Bevan ULHB – 2 hospitals	594,164 (18.8%)	87	6,829
Wales			

If there was clarity regarding the actual catchment population per individual hospital the calculation of trauma bed allocation would be even more insightful.

Hip Fracture Care

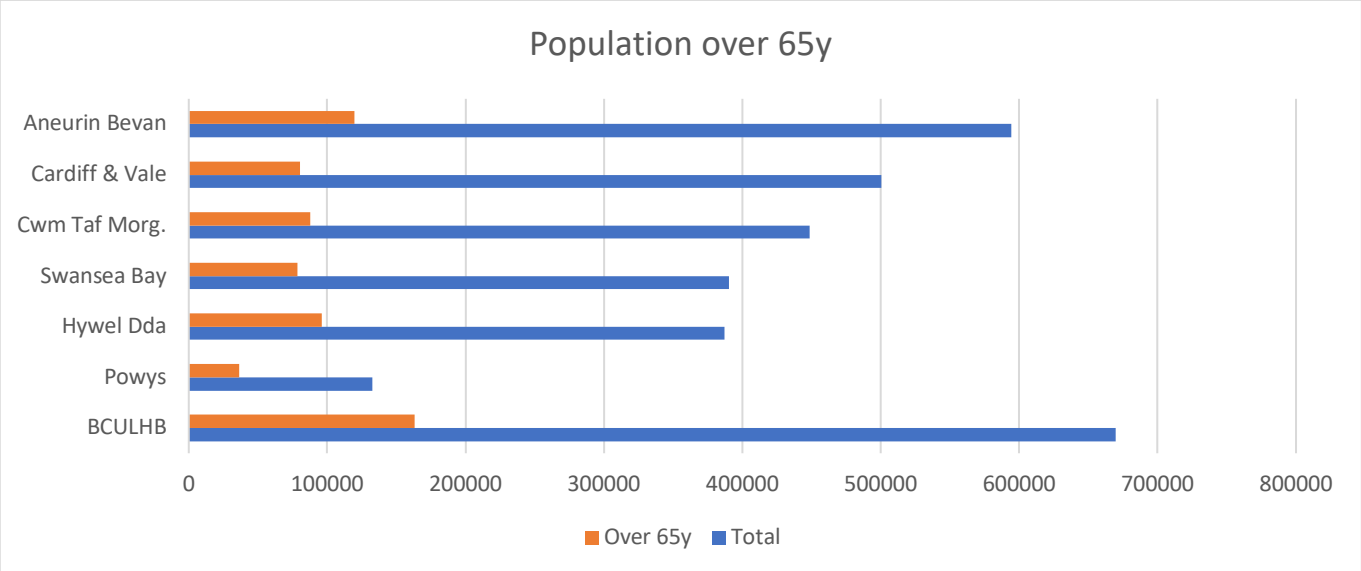
Hip fracture care is a surrogate marker of clinical load. The quality of a hip fracture service is believed to be an indicator of the trauma service as a whole. The demographics reflect the incidence of ‘silver trauma’ which results in a skewed incidence of hip fracture presentations.

Hospital	No Hip fractures reported in latest 2019 NHFD Report	No Consultants on call	Ratio of hip fracture cases per consultant on call
Ysbyty Gwynedd	298	12	24.8
Ysbyty Glan Clwyd	332	10	33.2
Wrescam Maelor	239	9	26.5
Bronglais, Aberystwyth	118	3	39.3
Withybush, Haverfordwest	196	5	39.2
Glangwili, Carmarthen	360	8	45
Morriston/Singleton, Swansea	555	12	46.25
Princess of Wales, Bridgend	234	8	29.2
Royal Glamorgan	233	9	25.8
Prince Charles, Merthyr	231	9	25.6
Univ. Hosp. Wales	532	16*	33.2
Royal Gwent Newport	436	17	25.6
Nevill Hall	339	9	37.6
			(29.8)
Wales	4,103		
All NHFD (Excludes Scotland)	67,673		

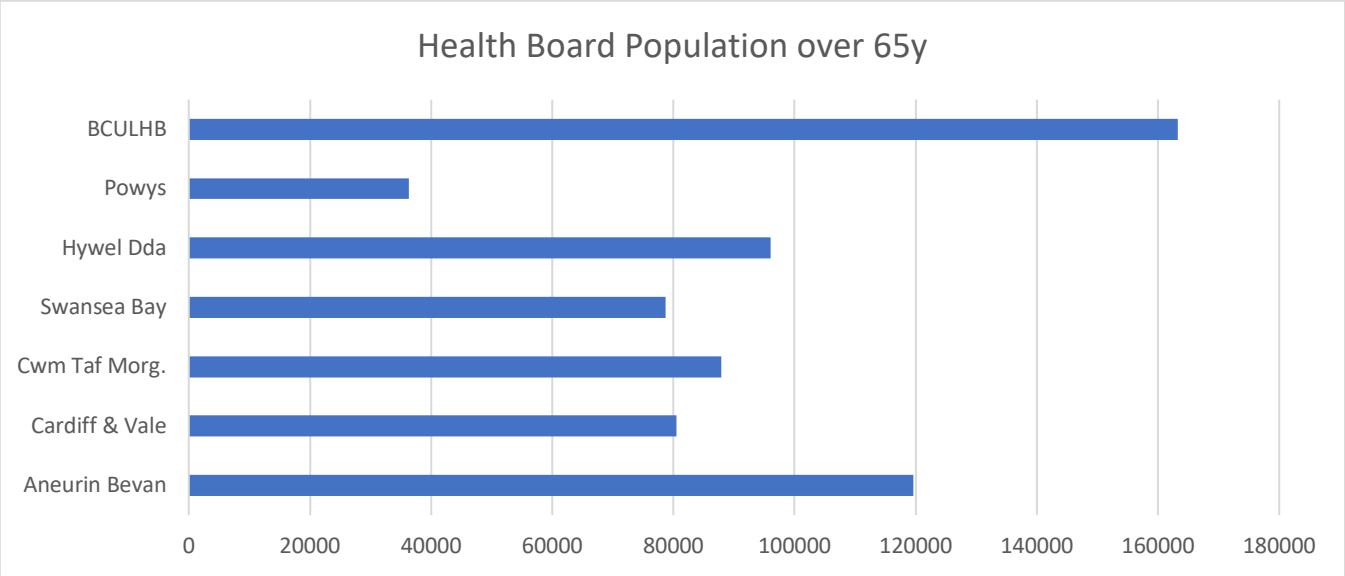
The Assessment Benchmark Summary in most recent NHFD report is insightful as to the most unfortunate level of quality of service given to hip fracture patients in Wales. The vast majority hospitals in Wales are in the fourth quartile for most Key Performance Indicator, the one exception being Bronglais hospital. It is of note than because of the local demographics within their catchment area Bronglais have the smallest incidence and therefore the smallest number of cases submitted to the Database. With 12 on call consultants in Swansea each consultant has about 46 hip fracture cases per year to manage.

Of the cases in Wales in 2019 the incidence is as follows

Health Board	Health Board Population (Stat Wales 2018)	Health Board population aged 65 and over	No Hip fractures reported in latest 2019 NHFD Report	Hip fracture incidence in population over 65
Betsi Cadwaladr ULHB	669,558	163,213,	298+332+239 = 869	1 in 187.8
Powys Health Board	132,435	36,376	0	0
Hywel Dda ULHB	387,284	96,015	118+196 + 360= 674	1 in 142.4
Swansea Bay ULHB	390,308	78,701	555	1 in 141.8
Cwm Taf Morgannwg ULHB	448,639	87,894	234+233+231=698	1 in 125.9
Cardiff & Vale ULHB	500,490	80,539	532	1 in 151.3
Aneurin Bevan ULHB	594,164	119,638	339+436= 775	1 in 154.3
Wales	**3,152,879**	**662,376**	**4,103**	**1 in 164.4**



This shows that nearly a quarter of the over 65years population in Wales is in one Health Board.



Health Board	% population in 2019	% population aged 65 and over in 2019	% Incidence of national hip fracture burden in 2019 report
Betsi Cadwaladr ULHB	21.2%	24.6%	21.1%
Powys Health Board	4.2%	5.4%	0
Hywel Dda ULHB	12.2%	14.4%	16.4%
Swansea Bay ULHB	12.3%	11.8%	13.5%
Cwm Taf Morgannwg ULHB	14.2%	13.2%	17.0%
Cardiff & Vale ULHB	15.8%	12.1%	12.9%
Aneurin Bevan ULHB	18.8%	18.0%	18.8%
Wales	**100%**	**21.0%**	**100%**

Despite head and brain trauma not being on the Trauma and Orthopaedic syllabus there are still three hospitals in Wales where non-surgical head injuries are managed by the Trauma & Orthopaedic service. While this might occasionally be acceptable where older consultants will have spent time in Neurosurgery as part of their training, it is questionable whether this can continue to be justified?

There is one hospital in Wales where the trauma and orthopaedic service take care of chest trauma if there are two or less fractures visible on plain radiograph.

Major Incident Preparedness

Within the Civil Contingencies Act 2004 Category 1 bodies such as the NHS hospitals have duties placed upon them, this includes Major Incident Planning.

NHS hospitals are compelled to have a Major Incident Plan consisting of the overarching plan and department and individual specific actions.

While there is time to plan for a rare ‘Rising Tide’ type of incident such as a pandemic or the Foot and Mouth disease, the nature of the acute onset of a violent event resulting in Trauma – a mass casualty event, requires hospitals and Trauma services in particular to partake in Major Incident Planning.

Inspection for TU trauma Unit accreditation within the overall NHS MTC Major Trauma Centre concept requires each hospital to have a detailed plan, shared and practiced.

Trauma and orthopaedic services in hospitals throughout Wales are integral to both the immediate response and the business continuity resilience following the declaration of a ‘Major Incident.’ It behoves all hospitals to involve their trauma and orthopaedic departments in developing skills and drills leading to a robust a response as possible within the resources available.

In the survey of all hospitals receiving trauma cases in Wales it is noted that one hospital had T&O service department involved in a Major Incident Plan over three years ago. No other department in Wales has been involved in planning or exercise.

Trauma & Orthopaedic Services throughout Wales – Scheduled elective care

Surgical Staff – the numbers and subspecialty interest table in the Manpower section illustrates the spread of surgical capability.

An increasing amount of elective surgery is now being performed as a day case or a single overnight inpatient stay.

The ability to reduce the service dependency on inpatient beds is a function of the services available in the community such as physiotherapy provision.

Adult elective service provision as provided in survey response is as follows.

Hospital	Adult Elective beds	Number of Laminar flow theatres
Ysbyty Gwynedd	16	4
Ysbyty Glan Clwyd	27	3
Wrescam Maelor	27	4
Bronglais, Aberystwyth	15	1
Withybush, Haverfordwest	14 (1/2 of 28T&0)	3
Glangwili, Carmarthen	28	2
Morriston/Singleton, Swansea	Insufficient data	Insufficient data
Princess of Wales, Bridgend	21	3
Royal Glamorgan	22	3
Prince Charles, Merthyr	24	1
Univ. Hosp. Wales	65	7
Royal Gwent Newport	67	5
Nevill Hall	30	3
Wales		

Health Board	Health Board Population (Stat Wales 2018)	No Adult inpatient elective beds	Number of total population per inpatient elective bed
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.2%)	70	9,565
Powys Health Board– no DGH	132,435 (4.2%	X	X
Hywel Dda – 3 hospitals	387,284 (12.2%)	57	6,794
Swansea Bay ULHB	390,308 (12.3%)	Insufficient data	Insufficient data
Cwm Taf Morgannwg ULHB 3 hospital	448,639 (14.2%)	67	6,696
Cardiff & Vale UHB	500,490 (15.8%)	67	7,470
Aneurin Bevan ULHB – 2 hospitals	594,164 (18.8%)	77	7,716
Wales			

<u>The interdependence between unscheduled trauma and scheduled elective service.</u>

For the majority of surgeons who practice trauma and orthopaedic surgery and are on call, leave in its various forms is taken during ones non on-call weeks. This therefore has the potential to disproportionately effect the reduction in elective commitments only. In hospitals where the frequency of on call is above average, the percentage of time for all on call staff to have an elective commitment is significantly reduced.

The survey indicates the following:

There is no relationship between the number of inpatient elective beds and the surgical demand.

The scale of provision of day case beds has no logic or uniformity.

The physiotherapy service provision to elective services is usually shared with trauma services and each is therefore diluted at times.

There is some weekend physiotherapy provision in at least seven hospitals.

Within Wales there is only one hospital where physiotherapy service is available after 4pm to aid in the discharge of the increasing number of day-case patients. We have not tried to quantify the number of patients admitted overnight as a result of this deficit.

A lack of in-house data available in each hospital relating to elective service provision means that most departments do not know the frequency and number of referrals, the numbers seen, and rely on National Joint

Register or Surgical Site Infection to approximate number of cases performed. “If you can’t measure it, you can’t manage it,” is a recurring theme.

There are areas in Wales where there isn’t enough clinical space for the current number of clinicians. This coupled with the limited access to theatre sessions are the main limiting steps to the appointment of new colleagues in order to service increasing demand.

There is no effective elective service strategy in a number of Health Boards.

Trauma & Orthopaedic Service administration and consultation

The complexity of the T&O service delivery as currently configured in Wales, does not always allow clear lines of accountability and thus performance management.

For clinical leads, the time spent on ‘management’ leaves too little time to provide the leadership in achieving agreed shared objectives, which would result in the development and maintenance of standards of clinical care.

The survey indicates:

That in many hospitals it is not considered standard practice for the non-clinical administrative colleagues to meet the consultants as a group.

There are only two hospitals, in one Health Board, where there are regular meetings of the Trauma & Orthopaedic consultant body.

Excluding daily trauma meetings, throughout NHS Wales, T&O surgeons do not have formal meetings with the anaesthetic service; indeed, there are no regular meetings with Emergency Department colleagues, paediatric or rheumatology colleagues.

Some replies did not know as to whether there was a Senior Medical and Dental Staff Committee meetings or equivalent in house. In most hospitals they were irregularly held. In three hospitals they were held with regular frequency.

One hospital has a weekly departmental meeting.

Many clinicians within the Society believe that they have been marginalised from the decision-making process regarding their service. To diminish their contribution to service planning and oversight, without having been replaced with those who have the knowledge to do so, has had the foreseeable results.

Review of the proceedings of the Health, Sport and Social Care committee during the first half of the Covid challenge, revealed surprise that clinicians and pragmatic junior managers took practical sober decisions to enable optimum business continuity.

It is hoped that survey results, with their acknowledged limitations, can help initiate a degree of trust to lubricate productive reform discussions.

Clinical Governance within Trauma and Orthopaedic departments in Wales

It is said that Clinical Governance is at the top of the agenda in NHS Wales. Is there proof that this is the case? By Governance we mean a quality assurance framework within which the organisation can assure the quality of patient care and services in the individual department. In truth quality is the business of all members of the department and indeed the hospital, both clinical and non-clinical. There is no systematic approach to managing quality assurance in NHS Wales.

The three core ingredients should ideally be:

Although there are traditionally seven elements to the Clinical Governance framework the survey concentrated on four:

Mortality and Morbidity discussions provide one of the best educational opportunities for service quality improvement. The tendency to nurture a 'Blame Culture' is believed to continue in some areas.

The survey concludes that in every hospital that replied, M&M cases are discussed at each meeting.

Clinical Risk Management. The systematic identification, assessment and reduction of risks to patients and staff has three components – the identification, analysis and reduction of risks. In many service industries mistakes are not stigmatised but regarded as learning opportunities.

There are at least two hospitals where clinical risk management is not discussed at each meeting.

It is frequently noted that local circumstances such as availability of estate or duty roster numbers can play a significant contribution to the event. It is therefore believed by some that a member of the non-clinical management team be present when discussions are being held. It is the authors view that this should be considered best practice.

The survey concludes that only two departments have managerial colleagues present when clinical risk matters are being discussed.

Clinical Audit. Much of what is termed Audit is often a survey. To be useful an audit should have the potential to inform change with re-evaluation. This is more likely if observations are measured against an accepted standard. 'Closing the loop' audits and annual comparison audits are the most educational.

The survey concludes that in virtually every hospital audits or surveys are presented et most meetings. In five of ten hospitals it is believed that the quality of audit and subject surveyed results in informing change.

Complaints and Litigation

Ideally all such cases will have been discussed previously at M&M or CRM. In order to discuss trends, it believed by some that it is impractical to discuss at every meeting.

The survey reports that there are four hospitals where complaints / litigation are discussed at each meeting. There are five departments where they are discussed 'as required.'

In order to make good records of the important clinical governance meetings clerical support is believed to be needed. Such support is seen as a proxy indicator of the importance an organisation gives to quality improvement, education and patient safety.

The survey replies suggest that there are six departments in Wales where the Medical Director's office give importance to clinical governance activities, to a level that clerical support is made available.

So What?

The production of detailed minutes is not favoured by some who are aware that such records can be used against individuals when matters become known to the General Medical Council as recent public cases have shown. To keep a record of these meetings is laudable in order that trends may be suspected and evaluated. To pass the minutes up within a Clinical Governance or Quality Improvement framework requires local trust. Some teams can be intimidated by the current hierarchy in which they work. Some quote the moral 'keep your own data.'

The survey concludes that within T&O services in Wales there are eight departments where minutes are passed up to an administrative body.

One of the barriers to team performance is lack of information sharing. This element of the survey could be a focus to initiate discussion. Those who are outliers may find this section as a resource to inform reform discussions.

It there a case to have a national T&O Clinical Governance framework which can be adopted locally?

Many departments are rightfully reluctant to be forced what to do without good purpose or indeed evidence. The value of a national framework for clinical governance activities would include that the national picture could be audited to access trends and direct attention. In the decreasing amount of time provided for clinical governance activities, there are departments where it is necessary to perform in house mandatory training during a clinical governance period. The need to perform to a nationally agreed standard may preclude this unfortunate development. The value of changing the majority of mandatory training at varying frequency to an online delivery has not been measured. The view that to do so results in box ticking and is not educational has not been evaluated.

Six of nine units who replied to this question reported that they would be willing to contribute to and adopt a national framework.

Departmental Guidelines

Clinical guidelines support the provision of a high-quality standard; where standardisation reduces the opportunity to make a mistake, to reduce variation and facilitate audit. If clinicians work synergistically with the managerial team, they have the potential to inform cost choices and thus establish treatment costs.

There are many national government, NHS, Society and College guidelines with varying degrees of scientific evidence. Within NHS Wales there is no reliable, robust mechanism for all these to be made known to frontline staff.

Only two of ten hospitals who replied to this section reported that they have a formal departmental mechanism to review all policies used.

Using prophylaxis as an example the survey reached the following conclusions:

Half the hospitals in Wales did not reply to this section of the survey.

Antibiotic prophylaxis

In at least five departments gentamycin and teicoplanin are used in prophylaxis for hip trauma implant surgery. One hospital uses cefuroxime and teicoplanin. One uses Cefuroxime alone.

For elective surgery the same five departments use gentamycin and teicoplanin, the sixth hospital uses ceftriaxone and teicoplanin. One uses Cefuroxime alone.

Thromboprophylaxis

Of the seven hospitals who replied to this section all used some form of fractionated heparin for hip fracture patients, used for a variable length of time with one supplementing with the use of graduated compression stockings.

For hip replacement patients most of the seven hospitals who replied use some form of fractionated heparin or oral anticoagulants with one supplementing with asprin and graduated compression stockings. One hospital who perform a significant number of replacements replied that there is no departmental standard.

For knee replacement patients the drugs used were similar but their use is for a shorter period usually to weeks. One hospital using compression stockings.

Education

Trainees in Wales are appointed by a central selection system.

There was a significant increase in intake for the past two years.

Current situation

Health Board	Health Board Population (Stat Wales 2018)	Number of Consultants	Number of trainees
Betsi Cadwaladr ULHB - 3 hospitals	669,558 (21.1%)	39	6
Powys Health Board– no DGH	132,435 (4.2%)	0	X
Hywel Dda UHB – 3 hospitals	387,284 (12.2%)	18	2
Swansea Bay UHB	390,308 (12.3%)	20	8
Cwm Taf Morgannwg UHB	448,639 (14.8%)	31	6
Cardiff & Vale UHB	500,490 (15.8%)	36	12
Aneurin Bevan UHB – 2 hospitals	594,164 (18.8%)	28	9
Wales	**3,152,879 (100%)**	**172**	**43**
Oswestry			2

Comments

One of the consistent findings throughout hospitals in Wales is the paucity of up-to-date reliable data; “If you can’t measure it, you can’t manage it.”, this survey is an attempt to rectify this deficit.

We would urge those who comment on this survey to appreciate that this is a snapshot of where T&O services in Wales are at present. **It is being made available as a nidus for long overdue debate on the goal of service improvement for our patients and is not intended as a detailed exploration of each individual unit’s service provision.**

Unfortunately, not all units were able to provide responses to the survey and therefore the conclusions and observations the authors are able to draw are somewhat limited. The responses received suggest the following:

It is apparent that many of the T&O services in NHS Wales operate as a cottage industry within the hospital, in isolation without discussion. Many of our non-clinical managerial colleagues spend their time firefighting, having no time to define, collate, share and discuss problems or drive service quality improvement. The apparent lack of regular interaction between colleagues and the supporting service management team implies division between clinicians and their non-clinical colleagues. There is an opportunity to improve the level of trust in some units.

There is no apparent consistent relationship between population and number of consultant surgeons, the number of elective, trauma, or day-case beds, or number of trauma lists. We would suggest that the first step would be to accurately measure the actual demand in order that the ‘Demand Capacity Gap’ can be clarified and agreed as a first step on the road to meaningful reform. This could initially be performed at Health Board level and ideally by those who do not have a political agenda. An important finding is the variation in subspecialty surgeon per unit of population compared to other Health Boards. The question is asked as to whether NHS Wales should have a surgical manpower plan? There are some units where a significant number of consultants are in their late 50’s; it may be appropriate for these units to focus on succession planning at this time?

The unfortunate degree of variation in NHFD outcomes in Wales may partly be due to the disparity in the provision of supporting services. Trauma care is where there is the greater potential for mistake, unfortunate outcome, litigation and cost to society, both personal and financial. The absence of a national trauma strategy and the resultant inconsistency of service is a concern. The first step to improvement is for individual Health Boards to recognise and acknowledge that there is a problem; they may be assisted in addressing this issue were there a National Trauma Strategy in place. At the request of the T&O clinical leads in Wales, specific suggestions for a National Trauma Service Strategy have been put forward to the Health Minister and we await developments.

The definite deficiencies throughout NHS Wales with regard to emergency planning, training, practice and audit are notable and unfortunate. While there may be plans at a Local Resilience Forum level and there may indeed be an actual plan, it is the Trauma and Orthopaedic Services that will have a significant role in a mass casualty incident – “Proper Preparation Prevents Poor Performance.”

Whilst not specifically requested within the survey, data in relation to the number of patients waiting for elective musculoskeletal procedures in Wales, suggests that it is not realistic to meaningfully reboot services in such a way that efficiency alone will reduce the back log. It is not the purpose of this survey to interfere with the work of the NHW Wales Planned Care Board. The absence of a National Elective Orthopaedic Surgery Strategy will become more acutely obvious once the Covid Challenges have passed. It is suggested that the concept of an Elective Orthopaedic Hospital, per current Health Board configuration should be revisited. Previous evaluations of this concept included the possibility of Day-case surgery being undertaken each District Hospital Setting. The important factor sometimes overlooked in such discussions, is the interdependence of Trauma and Elective service delivery.

The concept of addressing the additional requirement of Allied health professional activity (and indeed clerical staff) on the appointment of a new consultant in departmental expansion, was a standard activity that has now ceased with predictable results. The survey highlights the lack of supporting professional staff in many units. The absence of physical resources such as clinic space, office space and theatre provision can be a limiting factor in the appointment of surgeons.

The lack of consistency in clinical governance structures and their reporting methods suggests that a National Strategy is required which would include standardised reporting, corporate oversight and administrative support.