

Re: Your request made under the Freedom of Information Act 2000

I am writing to request information under the Freedom of Information Act. I am a medical student undertaking a clinical audit of the normal ranges of liver function tests, and how these normal ranges were developed across the UK, with the intention of publication. This information should be readily available through your clinical biochemistry or pathology department.

I would be grateful if you could provide me with the following:

1. The normal range (adults and children) for the following liver enzymes: alanine transaminase (ALT), aspartate transaminase (AST), alkaline phosphatase and gamma GT.

Alanine Aminotransferase (ALT)

Sex	Age	Range (U/L)	Source
Male & Female	0 – 115 years	0 - 55	Abbott Architect Activated ALT kit insert

Alkaline Phosphatase (ALP)

Sex	Age	Range (IU/L)	Source
Male & Female	0 - 4 weeks	70 - 380	Pathology Harmonisation [1]
	4 weeks – 16 years	60 - 425	Pathology Harmonisation [1]
	16 – 110 years	30 - 130	Pathology Harmonisation [1]

Aspartate Aminotransferase (AST)

Sex	Age	Range (U/L)	Source
Male & Female	0 – 110 years	5 – 34	Abbott Architect Activated AST kit insert

Gamma-Glutamyl Transferase (GGT)

Sex	Age	Range (U/L)	Source
Male	0 – 115 years	12 - 64	Abbott Architect GGT kit insert
Female	0 – 115 years	9 - 36	Abbott Architect GGT kit insert

2. The method and machine used with reference so it can be identified.

Abbott Architect

3. How was your local normal range determined?

Our Ref: 105
February 2024

See information above

5. Do your liver function tests automatically include measurement of AST?

No

6. How many sets of liver function tests, which include measurement of ALT and alkaline phosphatase, does your hospital or laboratory complete each year? How many patients does this represent?

Perform approximately 460000 LFT a year (based on 4 months and multiplied by 3).

Unable to ascertain number of patients have a repeat test in a year

7. How many requests for measurement of AST does your hospital or laboratory complete each year? How many patients does this represent?

Perform approximately 15500 AST a year (based on 4 months and multiplied by 3).

Unable to ascertain number of patients have a repeat test in a year

8. How many values exceed the upper limit of normal for each liver function test?

Unable to gather information with current staffing and IT constraints

9. If you do not hold this information because you consider the analyses to be done externally by an outside laboratory, please provide the name of the laboratory and email address for their FOI officer.

N/A