



Laboratory screening for hypophosphatasia in Scotland

Health Board:

Laboratory Name:

Location:

Name, Position and Contact Details of Individual Responding:

- 1) What platform does your laboratory currently use to measure ALP?

- 2) Which method does your laboratory use to measure ALP?

- 3) Does your laboratory use gender and age specific reference ranges for ALP?

- 4) Please quote the reference range(s) used by your laboratory for adults.

- 5) What is the source of the adult reference range(s)?

- 6) Please quote the reference range(s) used by your laboratory for children.

- 7) What is the source of paediatric reference range(s)?
- 8) Do you have an action limit for low ALP results in adults and if so what is the action limit and where does it come from?
- 9) Do you have an action limit for low ALP results in children and if so what is the action limit and where does it come from?
- 10) What action would you take on finding a persistently low serum ALP in an adult?
- No action
 - Add a comment
 - Add/recommend further tests
 - Check sample for EDTA/Citrate/Oxalate contamination
 - Add a comment and further tests
 - Check sample for contamination, add a comment and add further tests
 - Other action (please state)
- 11) What action would you take on finding a persistently low serum ALP in a child?
- No action
 - Add a comment
 - Add/recommend further tests
 - Check sample for EDTA/Citrate/Oxalate contamination
 - Add a comment and further tests
 - Check sample for contamination, add a comment and add further tests
 - Other action (please state)
- 12) If you add a comment to persistently low ALP results what information does that comment include (please tick all that apply)
- Clinical symptoms of hypophosphatasia?
 - Fractures and bone pain
 - Premature loss of deciduous teeth
 - History of rickets
 - Short stature/ failure to thrive (children)
 - Other (please state)
 - Other causes of low ALP activity?
 - Zinc/Magnesium deficiency
 - Hypothyroidism

- Hypoparathyroidism
- Hypogonadism
- Severe anaemia
- Vitamin C, B12, B6 or folate deficiency
- Excessive vitamin D
- Coeliac disease
- Wilson's disease
- Chronic illness or protein calorie malnutrition
- Other

c) Queries about medication patient might be taking?

- Oestrogen
- Bisphosphonate
- Clofibrate
- Omeprazole
- Lansoprazole
- Other

d) Advice on further investigation of hypophosphatasia?

13) If you add/ recommend further routine tests to samples that have persistently low ALP results what tests do you include?

14) If you provide advice on the further investigation of hypophosphatasia which specialised tests would you recommend (please tick all that apply)?

- Urine amino acids (phosphoethanolamine)
- Plasma PLP: PA ratio
- Genetic testing for mutations in *ALPL* gene

Please email your response to fiona.stratford@nhs.scot by Friday 29th August 2025.