Scotland Audit Group Bulletin

Pancreatic enzymes

Audit lead: Dr J Logie

Which area did you audit and why?

- Clinical features, together with elevation of pancreatic enzymes, are the key diagnostic indicators of acute pancreatitis
- Serum amylase is the most commonly measured enzyme in the UK due to the availability of cheap automated methods but it lacks specificity for the pancreas
- Lipase may be a better marker but anecdotally, it is less popular
- We audited this area in March 2016







What were the audit standards?

- British Society of Gastroenterology Guidelines For The Management Of Acute Pancreatitis, 2005
- This guideline suggests a preference towards lipase measurement

Identify audit topic or reaudit

Identify &

implement

changes

Set the standard

Collect &

analyse

data

GUIDELINES

UK guidelines for the management of acute pancreatitis UK Working Party on Acute Pancreatitis

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1.0 REVISED RECOMMENDATIONS AT AUDIT STANDARDS 1.1 Recommendations 2003 (*Unchang from the 1998 recommendations)

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 The correct diagnosis of acute pancreatitis

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- grade C).

 The actiology of acute pancreatitis should be determined in at least 80% of cases and no
- determined in at least 80% of cases and a more than 20% should be classified as idi pathic (recommendation grade B).
- Although amylase is widely available an provides acceptable accuracy of diagnosi where lipase estimation is available it preferred for the diagnosis of acute paneres
- Where doubt exists, imaging may be us ultrasonography is often unhelpful and pa creatic imaging by contrast enhanced co puted tomography provides good evidence the presence or absence of pancreati

Treatment of gall stones

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chalmagiopancreatography (ERCT) should be
performent in patients with acute pancreatitis
of suspected or proven gall stone actiology

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What are the next steps for laboratories?

- Engage with local gastroenterologists on which test(s) are required and develop better clinical guidance
- Consider cascading more specific tests (especially lipase which is available at QEUH, Glasgow) where there is diagnostic confusion
- Review telephoning limits in line with RCPath guidance
- Consider harmonising ACCR reference



What key things did you learn?

- Very few are aware of local guidelines regarding testing in cases of suspected acute pancreatitis
- Most laboratories offer serum amylase rather than lipase
- Very few cascade more specific tests (e.g. lipase, amylase isoenzymes) where there might be diagnostic confusion
- There is little consensus regarding alert and telephoning limits for serum amylase but generally close agreement of reference ranges
- Most laboratories offer urine and fluid amylase however there is wide variation in workload, turnaround time, reference ranges and cost
- Only a few laboratories report amylase:creatinine clearance ratio (ACCR) and none offer direct macroamylase testing

For more details: http://www.acb.org.uk/whatwedo/science/audit/audits-by-group/scotland-audit-group