<table>
<thead>
<tr>
<th>Title</th>
<th>A man with hypophosphataemia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Lam, JK; Lam, CW; Kung, AW; Tan, KC; Lau, KS; Lam, KS</td>
</tr>
<tr>
<td>Citation</td>
<td>Bmj (Clinical Research Ed.), 2011, v. 342, p. d773</td>
</tr>
<tr>
<td>Issued Date</td>
<td>2011</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/10722/139923">http://hdl.handle.net/10722/139923</a></td>
</tr>
<tr>
<td>Rights</td>
<td>This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.; BMJ. Copyright © BMJ Group.</td>
</tr>
</tbody>
</table>
CASE REPORT
A man with hypophosphataemia
A 76 year old man was referred with hypophosphataemia. He had a history of hypertension and gout. He presented with a six month history of generalised bone pain and lower limb weakness. Examination showed weak hip flexion and extension (power 4/5). Complete blood count, serum glucose, and kidney function tests were normal. Serum calcium was 2.33 mmol/L (normal 2.10-2.60), serum phosphate was 0.49 mmol/L (0.8-1.4), and alkaline phosphatase was 204 U/L (65.3-171.9). Maximal tubular reabsorption of phosphate was 0.44-0.49 mmol/L (0.9-1.35). A skeletal survey (radiographs including posteroanterior view of the chest; anteroposterior and lateral views of the whole spine, humeruses, and femora; anteroposterior and lateral views of the skull; and anteroposterior view of the pelvis) showed no evidence of fracture or lytic lesion. Technetium-99m-methylene diphosphonate bone scintigraphy showed multiple hot spots over rib cage, involving the costochondral and costovertebral junctions. He was treated with phosphate 500 mg twice daily and calcitriol 0.25 µg daily.

Parathyroid hormone (PTH) was within the normal range (53 ng/L; normal 11-54). Serum calcidiol was low at 38 nmol/L (50-250), and serum calcitriol was also low at 26.8 pmol/L (65.3-171.9). Maximal tubular reabsorption of phosphate was 0.44-0.49 mmol/L (0.9-1.35). A skeletal survey (radiographs including posteroanterior view of the chest; anteroposterior and lateral views of the whole spine, humeruses, and femora; anteroposterior and lateral views of the skull; and anteroposterior view of the pelvis) showed no evidence of fracture or lytic lesion. Technetium-99m-methylene diphosphonate bone scintigraphy showed multiple hot spots over rib cage, involving the costochondral and costovertebral junctions. He was treated with phosphate 500 mg twice daily and calcitriol 0.25 µg daily.

1 What is the most likely diagnosis?
2 How would you investigate and confirm your diagnosis?
3 What is the pathophysiological basis of this condition?
4 What is the treatment of choice?

Submitted by J Lam, C W Lam, Annie W C Kung, Kathryn C B Tan, K S Lau, and Karen S L Lam
Cite this as: BMJ 2011;342:d773

STATISTICAL QUESTION
Observational study design I
Researchers investigated violence by intimate partners and associated factors among married women living in Tirana, the capital city of Albania. A national survey undertaken in April 2001 was used to compile a list of all married women aged 25 to 65 years living in Tirana. A representative sample of 1039 women was randomly selected from the list. In summer 2003 all women in the sample were sent a questionnaire asking for social and demographic characteristics of themselves and their husbands together with details of any intimate partner violence over the previous year. Thirty seven per cent of the women reported that they had experienced spousal violence.

Which of the following best describes the study design used above?

a) Census
b) Prospective cohort study
c) Cross sectional study
d) Retrospective cohort study

Submitted by Philip Sedgwick
Cite this as: BMJ 2011;342:d1742

ON EXAMINATION QUIZ Risk factors for stroke
This week’s question is on risk factors for stroke and is taken from the onExamination revision questions for the MRCGP exam.

A 78 year old male patient mentions to you, in passing, that he is worried he might have a stroke.

Which of the following is the single, strongest risk factor for developing a stroke?

A Diabetes mellitus
B Hypertension
C Hypercholesterolaemia
D Rheumatoid arthritis
E Smoking