Questions for this month's clinical challenge are based on articles in this issue. The style and scope of questions is in keeping with the MCQ of the College Fellowship exam. The quiz is endorsed by the RACGP Quality Assurance and Continuing Professional Development Program and has been allocated 4 CPD points per issue. Answers to this clinical challenge will be published next month, and are available immediately following successful completion online at: www.racgp.org.au/clinicalchallenge.

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SINGLE COMPLETION ITEMS

DIRECTIONS Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the most appropriate statement as your answer.

Case 1 – Prue Brown

Prue Brown, aged 51 years, has a viral respiratory infection and attends to obtain a medical certificate for work. When you open her file on your computerised medical record you see a prompt asking if you wish to undertake colorectal cancer (CRC) screening on this patient.

Question 1

Prue tells you that her father had bowel cancer (diagnosed at age 65 years) and died at age 68 years. She has no other relative on either side of the family that has had bowel cancer. According to the NHMRC guidelines, Prue's risk of bowel cancer is:

A. at average or slightly above average
B. moderately increased compared to the general population
C. high
D. such that she should have a colonoscopy now and at 5 yearly intervals
E. B and D are correct.

Question 2

You discuss faecal occult blood testing (FOBT) with Prue. You tell her that a FOBT:

A. if positive indicates that bowel cancer is present
B. if negative excludes bowel cancer
C. has a sensitivity (proportion with cancer who correctly test positive) of over 95% on a single test
D. has a positive predictive value (likelihood of bowel cancer being present) of about 7%
E. has a lower positive predictive value than symptoms such as change in bowel habit or abdominal pain.

Question 3

You arrange an immunochemical FOBT for Prue. You tell her:

A. she needs to exclude meat from her diet for a week before the test
B. FOBT is covered by Medicare funding in an asymptomatic patient
C. FOBT is more likely to detect early bowel cancer than a colonoscopy
D. if her FOBT is negative she should repeat the test in 5 years time
E. no dietary restrictions are required.

Question 4

Prue's FOBT is negative. Two months later she returns to ask your advice as her 56 year old brother has just been diagnosed with bowel cancer. Prue has no rectal bleeding or other gastrointestinal symptoms. You:

A. reassure her that no further tests are indicated for her as she has had a recent negative FOBT
B. advise her that this new information increased her risk to 'category 2' or moderate risk
C. advise her that she is now at very high risk of bowel cancer
D. advise her to a colonoscopy every 2 years from now on
E. advise her to have screening with FOBT every 2 years.

Case 2 – Malcolm Burke

Malcolm Burke, aged 47 years, presented for a check up because he had been feeling tired and run down. He had no other specific symptoms, and in particular no bowel symptoms. Investigation revealed iron deficiency anaemia.

Question 1

You arrange a colonoscopy and gastroscopy. Colonoscopy revealed a carcinoma in the transverse colon. Malcolm tells you he has had a lot of blood tests and is booked in for scans before his appointment with the surgeon next week. Malcolm asks you what treatment he is likely to need. In general:

A. surgical resection for colon cancers is highly likely to result in a stoma
B. treatment for colon cancer would involve surgery and in many cases adjuvant chemotherapy
C. postoperative complications of rectal and sexual dysfunction are more likely in colon cancers than rectal cancers
D. radiotherapy is usually required for colon cancer to decrease risk of local recurrence
E. B and D are correct.

Question 2

Malcolm undergoes staging investigations and surgery. He recovers from the surgery well. He has no distant metastasis and has two positive regional lymph nodes. He is told he has stage IIIB disease. Choose the most correct response

A. the 5 year survival is over 85% for stage IIIB
B. with optimal surgery and thorough removal of the primary tumour there is low risk of recurrence
C. adjuvant chemotherapy would not have been needed had Malcolm had stage II disease
D. stage III tumours have significant risk of recurrence
E. adjuvant radiotherapy is the primary method for decreasing local recurrence in stage III colonic tumours.

Question 3

In patients with isolated liver metastatic disease from colorectal cancer

A. surgical resection is potentially curative
B. palliative chemotherapy is the only option
C. selective internal radiation therapy is the treatment of choice in Australia
D. cryotherapy and embolisation have strong randomised control data to support their use
E. surgical resection of liver deposits is possible in the majority of cases.

Question 4

Malcolm's daughter, Sandy, age 22 years, comes to see you for advice about preventing colorectal cancer. Choose the correct statement

A. Sandy is in the category 1 risk group
B. assuming she has no symptoms earlier,

Sandy should have her first colonoscopy at about age 42 years
C. selenium supplements have a proven role in CRC prevention
D. selective COX-2 inhibitors are recommended for patients at high risk
E. Sandy should eat a healthy diet anyway but no specific dietary measures lower the risk of CRC.

Case 3 – Tony Stricher

Tony Stricher, aged 45 years, smokes 25 cigarettes per day. He attends for a prescription of omeprazole. Although this is not on his regular medication list he tells you he has taken antacids on and off for years for indigestion. He has been taking his partner's omeprazole for about 6 weeks.

Question 1

Tony tells you that he has burning retrosternal discomfort that is only partially relieved with omeprazole. His current symptoms are worse than they have been in the past and feel different to his 'normal indigestion'. He has not noticed weight loss, difficulty swallowing or early satiety. The best course of action at this stage is to:

A. prescribe omeprazole and tell Tony he is likely to need the medication long term and to phone for further repeats
B. change Tony to a newer proton pump inhibitor (PPI)
C. arrange an endoscopy
D. arrange a heliobacter breath test and if negative continue to prescribe PPI medication indefinitely
E. arrange a chest CT scan.

Question 2

Tony has further assessment and is diagnosed with 'Barrett's oesophagus'. His biopsy report states there are moderate dysplastic changes and severe inflammation. Dysplasia in Barrett's oesophagus

A. is a risk factor for adenocarcinoma
B. is a risk factor for squamous cell carcinoma
C. should be treated with oesophagectomy to prevent progression
D. is not related to oesophageal cancer
E. does not require monitoring.

Question 3

Tony has regular monitoring of his Barrett's oesophagus for a couple of years. He then moves overseas for work and is lost to follow up. Five years later he returns to see you and complains of dysphagia. He is diagnosed with cancer of the oesophagus and undergoes surgical resection using the left thoraco-abdominal approach. This approach:

A. is best suited to upper oesophageal tumours
B. means that a jejeunostomy feeding tube cannot be formed during the procedure
C. cannot include a pyloroplasty
D. may be complicated by pain and 'clicking' of the costal cartilage on exertion
E. is associated with heavy blood loss and high risk of mediastinal bleeding.

Question 4

Fortunately, Tony's surgery goes well and he had no involved lymph nodes. Choose the correct statement regarding palliative treatment for patients with advanced disease

A. radiotherapy is the mainstay of treatment
B. oesophageal cancer is unresponsive to systemic chemotherapy
C. self expanding metal stents are effective for treating dysphagia
D. self expanding metal stents have a high complication rate
E. serial endoscopic dilatation is the most common form of treatment for dysphagia.

Case 4 – Junko Suzuki

Junko Suzuki, aged 55 years, presents with persistent epigastric discomfort. An endoscopy revealed an ulcerated lesion shown to be gastric carcinoma on biopsy. She is being treated by a multidisciplinary team at the state cancer hospital.

Question 1

Junko tells you her father died of gastric cancer and that she is very worried that she will not survive her treatment. Choose the correct statement

A. surgical resection is a major operation and of doubtful benefit as the overall prognosis is poor
B. the 5 year survival figures for gastric cancer are better than those for colorectal cancer
C. the overall 5 year survival for gastric cancer is approximately 50%
D. after curative surgery locoregional recurrence is rare
E. the overall 5 year survival for gastric cancer is less than 35%.

Question 2

Junko has a total gastrectomy. Choose the correct statement regarding postoperative problems she may experience.

A. patients need to eat twice per day and avoid snacks to reduce side effects
B. 'early dumping' causes symptoms of hypoglycaemia
C. B12 deficiency is corrected by oral B12 supplements
D. 'late dumping' causes epigastric pain and heartburn
E. 'early dumping' is caused by a hypertonic load being 'dumped' into the jejeunum.

Question 3

If Junko had had more extensive local disease and metastatic spread at the time of presentation her management may have been different. Choose the correct statement

A. even if not curative, palliative gastrectomy is recommended to reduce risk of local complications
B. in patients with bleeding, oversewing of the bleeding vessel is the treatment of choice
C. external beam radiotherapy is contraindicated in patients with bleeding from a gastric malignancy
D. oral absorption of medication is often decreased and early use of parenteral medications is required in palliative care
E. the operative mortality for palliative bypass procedures in gastric outlet obstruction is very low.

Question 4

Four years later Junko develops both locoregional recurrence and metastatic disease. Her treating team decide to use palliative chemotherapy with epirubicin, cisplatin and fluouracil (ECF). Choose the correct statement.

A. response rates of palliative chemotherapy in gastric cancer are over 90%
B. chemotherapy may help relieve symptoms but has no survival benefit
C. cisplatin is highly emetogenic
D. fluorouracil (5FU) is an oral medication
E. cisplatin is cardiotoxic.

ANSWERS TO MARCH CLINICAL CHALLENGE

Case 1 – Francis Ferguson

1. Answer D

In an acute presentation of a patient with possible psychotic symptoms, it is important to establish rapport and a therapeutic alliance, establish the presence of psychotic symptoms, and perform a risk assessment. Making a specific diagnosis such as schizophrenia is less important at this stage.

2. Answer B

Cannabis use can precipitate psychotic symptoms and may worsen symptoms in people with psychotic illness. It may contribute to the development of schizophrenia in people predisposed by factors such as genetic susceptibility or early environmental influences. It has been estimated that 5–8% of cases of schizophrenia could be prevented if cannabis was not used at all.

3. Answer B

Positive symptoms in psychosis include hallucinations and delusions and formal thought disorder. Patients with early psychosis may not have these frank psychotic symptoms but may show symptoms such as reduced concentration, deteriorating role function, irritability, anxiety, depression, sleep disturbance or social withdrawal.

4. Answer C

Although antipsychotic medication is the definitive treatment for acute psychosis, many other aspects of management are vitally important including building a therapeutic alliance, psychoeducation and support for both the patient and their family, and anxiolytic medications if required. The decision regarding inpatient care depends on the patient's circumstances and a risk assessment. In some cases involuntary admission may be required.

Case 2 – Francis Ferguson (continued)

1. Answer D

Although brain tumour or temporal lobe epilepsy are possible causes of psychosis, other symptoms and signs are likely to be present. Francis does require a comprehensive physical assessment in particular looking at evidence for underlying physical illness, other effects of substance use, cardiovascular risk and baseline investigations relating to the risks of the medications he may be prescribed.

2. Answer E

Risperidone is a second generation antipsychotic agent with evidence of good efficacy and reduced relapse rates. However, starting doses are lower than therapeutic doses and the therapeutic effect of antipsychotic agents may take weeks to manifest.

3. Answer B

Second generation antipsychotics carry a much lower risk of EPS than typical agents but risperidone can cause EPS in high doses. Some antipsychotic agents are associated with QTc prologation and risk of arrhythmias and olanzapine is associated with weight gain, hyperlipidaemia and hyperglycasemia.

4. Answer B

The RANZCP guidelines suggest antipsychotics be taken for 1 year following the first episode, 2 years following a single relapse, and long term following any subsequent relapse. Using antipsychotics 'for life' is not the general rule and medication may be gradually withdrawn after a prolonged period of stability.

Case 3 – Francis Ferguson continued

1. Answer B

Effective treatment of psychosis includes pharmacological, psychological, social and occupational interventions. Types of CBT have been found useful in the treatment of hallucinations as well as in encouraging reality testing and identifying and managing factors that exacerbate symptoms. Befriending and supportive psychotherapy have also been shown to be effective interventions.

2. Answer E

It is important to understand the reasons behind the relapse to address them such as poor adherence to medication (due to side effects or poor control of symptoms), unawareness of early warning symptoms or lack of monitoring for them, and high risk situations for substance use.

3. Answer A

Coping styles of over involvement or criticism or both have been described as expressed emotion (EE). Patients with psychosis who come from families with high EE have a higher relapse rate. Interventions to assist families develop constructive problem solving skills and communication skills assist in reducing EE.

4. Answer D

An assessment of motivation to change and engagement with Francis is crucial and motivational interviewing techniques assist with facilitating behaviour change. An integrated approach, whereby both mental illness and substance use are addressed by the same treatment team – in this case the mental health team and the GP – is the most appropriate.

Case 4 – Joan Hardiman

1. Answer D

About half of patients with Alzheimer disease develop psychotic symptoms at some point and they are often of this type. Dementia is often complicated by depression and Joan is likely to be at risk because of her past history. It is important to exclude delirium as the cause of her symptoms.

2. Answer A

Patients with dementia are especially vulnerable to delirium.

3. Answer E

Joan may well have significant depression but she requires a full assessment. Vision and hearing impairment are risk factors for hallucinations and need to be corrected.

4. Answer C

Risperidone is the only atypical psychotic agent listed on the PBS for 'behavioural and psychological symptoms of dementia' but it can cause EPS and may be associated with an increase risk of cerebrovascular events in vulnerable patients. Other typical and atypical agents still have a place. As symptoms often settle over time, doses of psychiatric medications should be reassessed every few months.

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