

EXAMINATION

2 November 2010 (am)

Subject F201 — Health and Care Specialist Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *You have 15 minutes at the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.*
3. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt both questions, beginning your answer to each question on a separate sheet.*
6. *Candidates should show calculations where this is appropriate.*

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.

<p><i>In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.</i></p>
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QUESTION 1

PlatCo is a large but geographically concentrated South African Platinum mining company situated close to Rustenburg. The company provides healthcare (including occupational healthcare) to its 35 000 low-income employees via its own facilities. These facilities are managed as a separate division of PlatCo, called PlatCo Medical Services, and include:

- Primary healthcare facilities inclusive of a pharmacy, and basic radiology equipment;
- Salaried healthcare professionals inclusive of nurses, general practitioners, radiologists, dentists and physiotherapists;
- Salaried specialists for a small number of specialised disciplines; and
- A 200-bed hospital, inclusive of a theatre, for general tertiary care.

When employees need specialised care of a nature unavailable through PlatCo Medical Services, PlatCo Medical Services will refer these employees to relevant outside facilities in Rustenburg, and reimburse these on a fee-for-service basis.

PlatCo Medical Services does not keep detailed utilisation records of PlatCo employees' visits to its facilities.

PlatCo transfers a fixed per-capita fee into PlatCo Medical Services for the provision of all healthcare to its employees. The fixed fee is calculated annually in advance as part of PlatCo's annual budget process. PlatCo Medical Services budgets to break even every year.

The Council for Medical Schemes recently indicated that they are investigating the possibility that PlatCo is conducting the business of a medical scheme through PlatCo Medical Services.

- (i) Define the business of a medical scheme and provide your opinion as to whether or not this applies to PlatCo Medical Services. [4]

PlatCo decides to restructure its healthcare arrangements in such a manner as to ensure that services are financed through a registered medical scheme. You are a consulting actuary approached by PlatCo to assist with the process.

PlatCo is considering two courses of action. It can either request an existing open medical scheme to provide cover for its employees, or it could structure and register a new restricted medical scheme specifically for PlatCo employees. In either case, PlatCo prefers healthcare for its employees to continue to be provided via PlatCo Medical Services' facilities.

You have been asked to draft a short report comparing the characteristics of open and restricted schemes and discussing which type of scheme is more likely to be a suitable vehicle for the provision of cover to PlatCo's employees.

- (ii) Outline the points you would include in the report. [14]

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After some deliberation PlatCo decides to establish a restricted membership medical scheme for its employees. The scheme is to be called PlatMed and will have a single benefit option. Compulsory membership of this medical scheme will become a condition of employment for all low-income PlatCo employees. PlatCo will replace a portion of its per-capita fee presently being paid into PlatCo Medical Services with a contribution subsidy which will be specified as a percentage of PlatMed's contributions. PlatMed will provide services by

- Paying a capitation fee to PlatCo Medical Services for the provision of primary care as well as the secondary and tertiary care available in PlatCo Medical Services; and
- If PlatCo Medical Services refer PlatMed members to external facilities, PlatMed will reimburse the latter on a fee-for-service basis.

The benefit structure of PlatMed is to be structured in such a way as to provide benefits similar to those employees can currently access through PlatCo Medical Services.

The administration of PlatMed will be outsourced to a third-party administrator.

You have been asked to calculate an appropriate capitation fee to be paid by PlatMed into PlatCo Medical Services, as well as PlatMed's contributions for 2011.

- (iii) Describe in detail how you would approach and perform these calculations. You are not required to outline a benefit structure for PlatMed. [16]

PlatCo agreed with trade unions to subsidise 100% of the principal member contribution and 50% of adult or child dependant contributions. The company intends to maintain this subsidy after normal retirement and has to establish a PRMA liability on its balance sheet to reflect this obligation. You have been asked to assist with the drafting of a subsidy policy.

- (iv) List questions that the company should consider in setting up its subsidy policy. [4]

The financial director of PlatCo is concerned about the impact that a PRMA liability will have on the company's financial position. He suggests that PlatMed should convert to an income-based contribution table. He wants PlatMed to introduce a lower income band, for income levels below the level of the lowest salaried employee covered by PlatMed, with lower contributions than those presently being paid by active members. He argues that, although PlatMed does not cover any pensioners as yet, future pensioners are likely to fall into this lower bracket and will therefore require a smaller subsidy after retirement, resulting in a smaller PRMA liability.

- (v) Comment on the financial director's proposal. [6]

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In order to attain statutory solvency over time, Platmed could either structure its contributions in such a way that it makes sufficient surpluses, or approach PlatCo to make a grant which will be paid directly into the scheme.

- (vi) Discuss the merits and consequences to PlatMed and PlatCo of each of these two options. [6]

[Total marks 50]

QUESTION 2

You are an actuary employed by an open medical scheme called UltraMed. UltraMed's most affordable option, the Budget Plan, has a full risk transfer arrangement with a managed care organisation called YMCO. The Budget Plan provides benefits for all Prescribed Minimum Benefits as well as unlimited primary care, subject to stringent protocols and formularies, at providers in YMCO's networks. YMCO has negotiated preferential rates with all of these providers and reimburses these on a fee-for-service basis.

UltraMed pays YMCO a capitation fee which is negotiated on an annual basis.

- (i) List the types of risk that can be transferred from a scheme to a managed care organisation and briefly explain how these risks apply to Ultramed and YMCO's arrangement. [4]

The Budget Plan has shown significant growth over the past two years and presently covers approximately 35 000 members.

YMCO has recently indicated to UltraMed that its claims experience on Budget Plan has increased significantly and that it will require a 45% increase in its capitation fees on 1 January 2011. YMCO asserts that this increase was primarily driven by a deterioration of Budget Plan's demographic profile. Specifically, the prevalence of beneficiaries utilising chronic medication has increased significantly during the past nine months.

As part of the capitation fee negotiation process, YMCO provided UltraMed with detailed claims data for Budget Plan for treatment months January 2009 to September 2010. In order to protect YMCO's intellectual property, however, the data has been adjusted so that each claim line reflects the Reference Price List (RPL) tariff rather than the discounted tariff actually paid to providers by YMCO. The data are detailed and include

- UltraMed's membership number and dependant number;
- Practice number and discipline of practitioner/supplier;
- Tariff code charged (NAPPI code in the case of medication);
- Acute / Chronic indicator (for medicine claims only);
- ICD10 code;

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- Prescribed Minimum Benefit indicator (yes/no);
- Date of treatment;
- Date of payment;
- Amount paid (based on RPL tariff only); and
- An in-hospital indicator (yes/no).

YMCO has also provided UltraMed with financial summaries of aggregated claims for Budget Plan broken down by month of service. These figures are based on actual amounts paid by YMCO (*i.e.* not adjusted in any way to hide discounted tariffs). YMCO also provided its present IBNR estimates for the Budget Plan broken down by the same months.

Based on these financial summaries, YMCO experienced a loss ratio of 110% over the last nine months. YMCO indicated that they require a loss ratio of 85% to cover their internal expenses and profit requirements.

It is also evident from the financial summaries that YMCO has a rather long IBNR tail, with 5% of claims still being provided nine months after date of service. YMCO indicates that it only started estimating its IBNR in accordance with actuarial principles since the inception of 2010.

- (ii) Discuss the analyses you would perform to assist UltraMed in verifying the nature and the cause(s) of the increase requested by YMCO. You should assume that it is presently October 2010. [20]

UltraMed considers two alternatives to deal with the proposed cap fee increase:

1. UltraMed reduces the risk transfer to YMCO to primary care only, in return for a reduced capitation fee. UltraMed then assumes risk for all secondary care and tertiary care.
2. UltraMed pays YMCO a management fee for use of its tariff structures and managed care protocols. UltraMed retains all the risk for this option's claims.

- (iii) Describe the factors that you would take into account in evaluating the two alternatives from UltraMed's point of view. [11]

In the light of recent communications issued by the Council for Medical Schemes, UltraMed's management team expressed concern as to whether YMCO is fully compliant with regulations pertaining to Prescribed Minimum Benefits (PMBs). You are instructed to analyse the data provided by YMCO to determine whether YMCO does provide for all Prescribed Minimum Benefits in accordance with the Act and Regulations.

- (iv) Describe the main components of PMBs as defined in the Act and Regulations. Include in your description how PMBs are affected by the appointment of a Designated Service Provider. [6]

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- (v) Outline the problems you could encounter if you were to use YMCO's data to determine which of its historic claims should be categorised as PMBs. You should break your answer down by the main PMB components. [9]

[Total marks 50]

[TOTAL MARKS 100]

END OF PAPER