EXAMINATION 3
FINANCE AND MANAGEMENT CASE STUDY EXAMINATION NOVEMBER 2005

PLENTYSIDE RENAL STRATEGY GROUP

TUTORIAL GUIDE

Synopsis of Case

The island state of Eden is renowned for its fertile soil and temperate climate and is a major exporter of flowers, fruit and vegetables. Its State Health Service (SHS) is delivered through 7 Strategic Health Authorities (SHAs), the most southerly of which is the Plentyside SHA. The River Plenty cuts a deep valley through the SHA and effectively divides it into two areas east and west of the river.

The case concerns the commissioning of renal services and specifically renal dialysis services for Primary Care Trusts (PCTs) within the SHA and the provision of these services by the secondary Hospital Trusts (HTs). All this is organized through a Renal Strategy Group (RSG) comprised of PCT and HT representatives and supported by a team of officers from Riverside University HT (UHT). The RSG, which is effectively a pooling arrangement for both renal resources and costs, was set up in 2002 and has just had a change of Chair. In the light of recently issued national guidelines, the new Chair is eager to adopt a much more strategic approach on renal services and wider involvement of stakeholders.

The candidate, who plays the role of the Accountant (Corporate & Projects) at Riverside UHT, is required to undertake the five-year strategic review requested and to produce a report for the RSG covering demand, supply and cost projections for the period in the light of an agreed development programme, as well as appraising the strategic aims of the RSG for the management of its services and service delivery.

Within Riverside UHT itself, an issue arises on the supply of Erythropoetin (EPO) and renal dialysis fluids. A letter received from an employee points to operational and control problems at a satellite store and dispensary providing the west area of the SHA with these consumables. The candidate is required to carry out an assessment of the implications of the weaknesses in control, the poor practices and the operational risks at the facility as well as evaluating the financial and non-financial consequences of two identified storage and delivery options as regards the facility's continued use or its replacement.

The case material also gives candidates full opportunity to demonstrate their understanding of the case material, their ability to apply management knowledge and their skill at communicating relevant information clearly and tactfully.

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Question 1

Aims

(a) To test candidates' understanding of the case material and particularly the issues raised by Dr Artow in his letter to the Chief Executive about the RSG;

(b) To test candidates' ability under severe time pressure to recognize, analyse and comment appropriately upon the issues relating to demand, supply and the developments planned to address the current shortfall in provision;

(c) To test candidates' skills in organizing and presenting such information in a clear, concise and tactful draft briefing note for the Assistant Chief Executive.

Assessment

(a) A brief description of the zonal management arrangements on renal dialysis services and progress to date, with an explanation of the reasons for adopting such an approach and the potential benefits to be gained. (6 marks – A 6)

- A brief description of the RSG zonal arrangements and progress to date, noting that –
  - They do indeed represent a pooled approach to dealing with the specialty of renal care and treatment; (ii),(iii)
  - The RSG was established in 2002 and to date has been more concerned with agreeing an approach and establishing operations than strategic matters; (ii),(vi),1
  - The RSG Board is made up of those commissioning treatment and those responsible for its provision and coordination; (ii),(vi)
  - The approach adopted is based on a "hub and spoke" basis with the two main sites dealing with high dependency and acute ESRF cases, where specialist care is required, and the satellites providing dialysis and general support; (iii)
  - The RSG Board is well balanced between representatives of the east and west zones, with the Chair (Ros Berry) coming from the east zone. (vi)
- An explanation of the reasons for adopting such an approach, including -
  - The need for a strategic approach to specialty services; (ii)
  - Government encouragement; (ii)
  - Both PCTs and other bodies in the SHA favoured such an approach. (ii)
- An explanation of the potential benefits to be gained, noting specifically –
  - An integrated approach and a sharing of the expertise available in the area; (ii),2
  - Increased flexibility in addressing service issues; 2
  - A better chance of implementing service priorities and developments; 2
  - Increased opportunity for multi-professional education and training; 2
  - Less volatile costs for individual PCTs and a smoothing of the impact; (vi)
  - Greater certainty in terms of costs. (vi)
- In terms of the 5-year planning strategy, an explanation of the background to its adoption and the reasons for this, noting –
  - That development to date had been ad hoc and opportunistic; 2
  - The change of RSG Chair and the influence of the new Chair on the decision to carry out a strategic review and adopt longer-term approach to planning; (vi),1,3,
  - The benefits of longer-term strategic planning in identifying priorities, setting goals, planning developments and being able to review progress periodically; 3
  - The RSG's broad support for this initiative; 3
  - The breadth of the strategic approach covering not just demand, supply, development and costs, but improved service delivery, consistency in clinical standards and greater patient involvement. 1,3

(b) A response to the issues raised on the 2005 and 2006 forecasts relating to demand, supply , developments and costs. (12 marks – C 8, A 4)

- On demand -
  - An acknowledgement that the opening 2005 figures are the only actual figures; (viii)
  - A note that the other figures are projections based upon research and reflect a growing incidence of renal dialysis patients; 11
  - Analysis of the east and west area opening 2005 figures in comparison to the respective populations;
  - An explanation that whilst 41% of the population are based in the east area, only 39% of the renal dialysis cases are accounted for by this area;
  - Conclusion that the incidence of renal dialysis cases is greater in the west than the east area.
  - A comment that the "externals" are people resident in an area outside but adjacent to the west area (population 117,000) who are treated in the west based hospitals as part of longstanding national arrangements. (iv)
- On supply -
  - Analysis of the demand and supply figures over the east and west areas for 2005 and 2006 to produce net deficit figures;
  - An acknowledgement that the deficit in the east in 2005 and 2006 is disappointing and worsening. A range of figures may be quoted to illustrate this point – see Appendix 1A..
  - Agreement that the situation in the east is worse than in the west, but –
  - A note that the situation in the west is also worsening.
  - Conclusion that, as the position in the west has deteriorated by more than in the east, there is hardly evidence of preferential treatment for the west.
- On developments -
  - A note that the closure of Garden City will be offset by the opening of Duchess of Lawnton and effectively represents a transfer rather than a closure; (vi),(viii)
  - A note that facilities at Raceham in the west are new, not an extension, and a reminder of the Bowpark extension in the east; (vi),(viii)
  - An analysis of the developments planned for the period 2005-09 in terms of additional renal dialysis stations and patient slots from – (vi), 2,3
    - new units and extensions to existing units (net of closures), and
    - the additional shifts being introduced;
  - An acknowledgement that, over the 5-year period, more additional patient slots are being created in the west than in the east (138 patient slots against 130);
  - Conclusion that, pro rata to population, this outcome is beneficial to the east by about 20 patient slots.
  - Candidates may choose to compare the projected overall position of the east and west areas as at 31 December 2009. Such a comparison will highlight that although the east will be receiving a greater share of the growth in supply, it will still suffer relative underprovision on completion of the current development programme.

- On costs -
  - An acknowledgement that costs in the east overall are lower than in the west; (ix)
  - A note that these figures are skewed by –
    - the high costs of the high dependency units at the two main hospitals, Bowpark in the east and Royal Riverside in the west (iii),(viii)
    - the number of patient slots provided by Royal Riverside (more than three times the number of any other hospital); (vii),(viii)
  - A reminder about the purpose of a zonal approach in terms of fair, less volatile charges for all. (v)
  - The commissioning bodies (the PCTs) all pay the same price per patient, irrespective of the actual treatment provided; (iv)

NOTE For suggested calculations see Appendix 1A

(c) Conclusions, presentation, format, tact and general readability. (2 marks – P 2)

Question 2

Aims

(a) To test candidates' ability to analyse, use and evaluate a considerable volume of data in the context of a strategic review and planning exercise;
(b) To test their competence in reviewing the current approach to renal dialysis within the SHA and the strategic aims of the RSG to manage its services and service delivery;
(c) To test their ability to calculate and analyse five-year projections for the demand and availability of facilities for end stage renal failure treatment, as well as producing five-year projections of costs and unit costs for the service;
(d) To test their ability to critically appraise the results of these exercises in the light of the criteria set by the RSG and to formulate solutions where criteria are not met;
(e) To test their competence in drawing reasoned conclusions and making recommendations as regards the five-year strategy to be adopted;
(f) To test candidates' ability to produce a well-structured draft report for the RSG.

Assessment

(a) Brief background, the purpose of the strategy report and the criteria set for the delivery of the renal dialysis service over the five-year period 2005-2009. (4 marks – A 4)

- Brief background noting that -
  - As people live longer and the elderly population grows, pressures on health services generally increase; 11
  - One impact of this is the increasing number of patients with end stage renal failure and requiring dialysis facilities; 11
  - Facilities to handle patients with end stage renal failure have developed on a largely ad hoc basis to date; 2
  - This has resulted in stretched levels of services, lack of patient choice and inequitable service provision, with some patients having to travel long distances. 16,21
- Purpose of the strategy report noting that –
  - Annual projections and budgets have always been produced, but, to date, there has been no medium-term planning process; (vi),1,2,3
  - The work undertaken as part of the 2006 budget process has identified –
    - A significant shortfall in provision, particularly in the east health economy (vii),(viii)
    - A unit cost increasing in real terms and above the indicative national tariff (iv),(ix),2
  - The Renal Strategy Group, under its new Chairman and in response to national guidelines, has agreed to introduce 5-year strategic planning, building upon the budget projections already produced; 1,2,3,8
  - The strategy report will therefore cover the two years already budgeted (2005 and 2006), plus a further three year period (2007-2009) 8,9,14
  - The price base throughout will be 2005 projected outturn. 8,14
- Criteria for delivery -
  - Reduction and elimination of the current deficit in dialysis supply; 9
  - Self-sufficiency between the east and west health economies in terms of meeting demand in order to bring services closer to patients; 9
  - Increased cost efficiency through reduction of the unit cost per slot to below £35,000 per annum at 2005 price levels; 9
  - A provisional cash increase of £2 million (2007), £1½ million (2008) and £1½ million (2009) at 2005 price levels 9
  - The development of services in a systematic and evidenced way, with quality standards identified and put in place. 9
  - A closer involvement with renal patients and their families. 9

(b) A critical appraisal of the existing approach to renal dialysis within the SHA with regard to both management and service delivery, identifying specifically current strengths and weaknesses (8 marks – A 8)

- Positives -
  - The RSG has been established providing potential benefits in terms of – (ii),2
    - A more integrated and holistic approach to renal care in the SHA
    - More flexibility in addressing service issues and problems
    - Agreement on service priorities and a unified approach to development funding
    - Increased opportunity for multi-professional education and training
    - Consistency in clinical and operational standards;
  - The administrative arrangements have been established in terms of commissioning and charging; (ii),(iii),1
  - There is dedicated administration and financial support established through the Royal Riverside UHT; (ii),(x),1
  - The new Chairman is eager for the RSG to adopt a more strategic approach as evidenced by – (vi),2,3,8
    - The call for a long-term strategic planning document
    - Her statements suggesting broad objectives for the RSG
    - A clear focus on service delivery and the patients.
- Negatives -
  - The RSG, established in 2002, is still in its infancy and to date operational issues have taken priority over strategic issues; (vi)
  - In terms of its operation as an executive body –
    - The RSG has no formal terms of reference 1
    - It has no formal mission statement for the service 1
    - Group members appear to lack clarity about their roles and responsibilities 8
    - Some RSG members seem reluctant to make decisions even after reference back to their employing authority 8
    - Links and relationships with key partner organizations (SHA, Workforce, PCTs and Hospital Trusts) need to be closer 8
  - In terms of development planning, to date –
    - This has been ad hoc rather than systematic 2
    - It has been largely driven by the hospitals on a "bids" basis 2
    - It has not necessarily been linked to patient need 2,3,16
    - There appears to be no review mechanism to assess its impact 21
    - There has been little or no consultation with patients or patient groups 16,21
  - In terms of service delivery and communication with patients, to date -
    - There has been little research into population profiles to establish demand 21
    - There is a lack of patient choice re the location and type of dialysis 16
    - Some patients are traveling long distances for dialysis 16
    - The quality of service can differ from hospital to hospital 16,21
    - There have been no surveys of patients to assess satisfaction 16,21
    - Communication with patients and their families about developments and the service generally is weak, even non-existent 16,21
  - In terms of service quality and cost –
    - No formal quality standards are in place and there is no formal monitoring 21
    - Indicative notional tariffs have been introduced only recently 2

(c) On the basis of the 2005 and 2006 base figures and the assumptions given, calculation of the renal dialysis projected demand and supply figures in terms of patients and patient slots respectively for the years 2007, 2008 and 2009. (10 marks – C 10)

- On renal dialysis demand (patients) -
  - A note of the populations of the east and west economies in the Plentyside SHA and the projected prevalence per million population (pmp) of renal dialysis cases in respect of 2007,2008 and 2009;
  - On this basis, calculation of the projected new renal dialysis patients for each of the health economies for the years 2007, 2008 and 2009;
  - Starting with the opening number of renal dialysis patients (2006 closing), the collation of all the projections for new patients, failed transplants, new transplants and deaths to arrive at a closing number for each of the health economies for the years 2007, 2008 and 2009;
  - Calculation of the average in-year demand for each of the health economies for the years 2007, 2008 and 2009;
  - All projections should also show sub-totals for the east and west health economies.
- On renal dialysis supply (patient slots) -
  - A note of the additional dialysis stations planned for the years 2007, 2008 and 2009 and their effective dates;
  - A note of the additional shifts planned for the years 2007, 2008 and 2009 and their effective dates;
  - On this basis, calculation of the projected patient renal dialysis slots available at each renal dialysis centre, including home dialysis, for each of the years 2007, 2008 and 2009;
  - All projections should also show sub-totals for the east and west health economies and identify the ad hoc treatments (excess demand) required.

NOTE For suggested calculations see Appendix 2A.

(d) A summary statement comparing demand with supply in overall terms and for the east and west health economies in total for each of the years 2005, 2006, 2007, 2008 and 2009 and a critical appraisal of the results. (4 marks – C 2, A 2)

- On renal dialysis, a summary statement comparing -
  - Overall demand and supply for the years 2005-09 and identifying the variance (excess demand) in each year;
  - Total demand and supply in the east health economies for the years 2005-09 and identifying the variance in each year;
  - Total demand and supply in the west health economies for the years 2005-09 and identifying the variance in each year;
- A critical appraisal of the results noting that –
  - Whilst the overall deficit does reduce from the high point in 2006, there is still an overall deficit in 2009, albeit a minor one;
  - The situation in the East health economies has also improved, but still shows a significant deficit in 2009;
  - The west health economies, on the other hand, show a surplus for the years 2007, 2008 and 2009;
  - Comment that, on the basis of the projections, there remains an imbalance between the east and west health economies which, if not addressed, will mean some patients having to travel considerable distances for treatment.

NOTE For suggested calculations see Appendix 2B.

(e) Calculation of the projected costs of each of the renal dialysis centres for each of the years 2007, 2008 and 2009 and the resultant cost per patient. (7 marks – C 7)

- On staffing costs -
  - On the basis of increases in the number of renal dialysis patient slots, a statement noting the additional consultants required in each of the years 2007, 2008 and 2009 for each of the renal dialysis centres;
  - On the basis of increases in the number of renal dialysis stations, a statement noting the additional renal engineers required in each of the years 2007, 2008 and 2009 for each of the renal dialysis centres;
  - On the basis of the information given, a statement noting the additional dieticians and specialist nurses required in each of the years 2007, 2008 and 2009 as part of general costs;
  - Calculation of the additional costs in respect of each of the above.
- On standing costs -
  - A note of the standing costs per patient slot given for hospital units, satellites and the new Duchess of Lawnton clinic;
  - Calculation of the additional standing costs incurred as a result of the above in each of the years 2007, 2008 and 2009 for each of the renal dialysis centres.
- On variable costs (EPO and consumables) -
  - A note of the variable costs per patient slot given;
  - Calculation of the additional variable costs incurred as a result of the above in each of the years 2007, 2008 and 2009 for each of the renal dialysis centres.
- On ad hoc (excess demand) treatments –
  - Adjustment of the B/F figure for the number of such treatments;
  - Calculation of the increase/reduction in standing costs relating to these treatments.
- A summary statement, analysed by renal dialysis centres and by east and west health economies for each of the three years 2007, 2008 and 2009, showing -
  - The opening projected costs each year brought forward;
  - The additional costs incurred on staffing, standing and variable costs;
  - The increase/reduction in standing costs for ad hoc (excess demand) treatments;
  - The closing projected costs;
  - The cost per patient slot revised.

NOTE For suggested calculations see Appendix 2C.

(f) Conclusions and recommendations including a critical review of the all the projected results achieved against the criteria set, consideration of options to address the deficit on supply and an appraisal of any risks involved with the projected figures produced. (8 marks – C 2, A 3, R 3)

- Overall conclusions that –
  - On the basis of the projections, the current developments in overall terms reduces the shortfall in patient slots from 50 in 2006 to just 3 in 2009;
  - However, there remains an imbalance between the east and west health economies with the west showing a surplus in 2009 of 15 patient slots, whilst the East still has a deficit of 18 patient slots;
  - In total cost terms, the additional running costs are within the parameters set of £2 million in 2007 and £1½ million each in 2008 and 2009 – there is in fact a saving of £478,000 over the three-year period, taking account of the limited flexibility available to use savings in different years;
  - The changes also have an impact on costs, reducing the cost per slot from the high point of £36,217 per patient slot in 2006 down to £35,097 in 2009;
  - This is still above the indicative national tariff of £35,000 per patient slot;
  - Whilst there is now a move towards the RSG becoming more strategic in its approach, there remain problems to be addressed in terms of –
    - Its operation as an executive body,
    - Its approach to development planning,
    - Its service delivery and communication with patients, and
    - Its service quality standards and costs.
  - The criteria in these areas are therefore not being met.
- A note that there are two options to address the 2009 east shortfall in patient slots –
  - The conversion of the Smallbridge dialysis operation from 2 to 3 shifts, adding 16 patient slots;
  - Expansion of the Grassthorpe project by 3 stations, adding 18 patient slots.
- Calculation of the impact of both these options on supply, total costs and unit costs.
- Explanation that –
  - The Smallbridge option only provides 16 patient slots, still leaving a deficit of 2 slots in the east, but it is affordable costing £416,000 and does reduce the overall unit cost below £35,000;
  - The Grassthorpe option provides 18 patient slots, thus meeting the deficit in the east, but, at £568,000, it is not affordable.
- Conclusion that, on cost grounds and subject to checking actual demand indicators, the Smallbridge option is to be preferred.
- A note of the risks inherent in the overall exercise –
  - All the demand projections are based upon a whole series of assumptions that are unlikely to prove to be absolutely precise in terms of the number of new renal dialysis cases, transplant numbers and mortality;
  - The incidence of patients might change between the various health economies;
  - The opening 2005 figures for population and incidence between east and west (the only actual numbers) indicate a higher incidence in the west than in the east;
  - Later development schemes remain provisional and subject to final agreement;
  - Operation of these is dependent upon being able to recruit suitable staff;
  - The extra monies for running costs are provisional and may not be achievable.

NOTE For suggested calculation see Appendix 2D.

(g) Presentation, format, readability and general logic of approach and argument. (3 marks – P 3).

Question 3

Aims

(a) To test candidates' ability to identify the weaknesses in control and poor practices at the Boothill Store and the implications of these in terms of audit risk;
(b) To test candidates' competence in calculating and collating the true cost of the store's operation and hence establishing updated prices for packs of dialysis fluid and EPO;
(c) To test their ability to carry out a more accurate apportionment of overhead costs over the two products and hence determine the correct charge out rate for each product;
(d) To test their ability to evaluate the two options put forward for the future ordering, holding and distribution of the two products;
(e) To test candidates' competence in drawing together all the financial and non-financial considerations and recommending a way forward in terms of the future holding and distribution of the two products;
(f) To test candidates' ability to produce a concise report for the Chief Executive, covering all relevant issues.

Assessment

(a) Brief introduction and background, summarising the history and purpose of the store, the purpose of the current exercise and the criteria set in terms of acceptable outputs. (3 marks – A 3)

- A brief note setting out the background to the current exercise;
- As regards the operation of the Boothill Clinic Store, an explanation of –
  - Its set-up and history; 4,10
  - Its purpose as the central store and delivery agent of EPO and dialysis fluids for the west health economies. 4,10
- A note of the commitment given to clients as regards continuation of the present supply and delivery service for EPO and dialysis fluids in the west health economies. 19
- A note that two options are under consideration for the future purchase and delivery of EPO and dialysis fluids – 17,19,22
  - Retention of the Boothill Clinic Store;
  - The storage and delivery of EPO by the Central Dispensary at the Royal Riverside Hospital, coupled with the direct delivery of dialysis fluids by the supplier to hospitals, clinics and patients.
- An explanation that the purpose of the current exercise is to – 22
  - Identify audit and operational risks at the store;
  - Establish the true costs of running the store and the prices resulting on the basis of a flat rate oncost for overheads;
  - Apportion costs over the two products supplied by the store to determine a more accurate pricing structure;
  - Evaluate the two options proposed in the light of the criteria set;
  - Produce conclusions and recommendations in the light of all financial and non-financial considerations.
- A note of the criteria set for the evaluation of the options –
  - Service delivery to clients must not be affected; 19
  - Prices charged for the two products must be on a full cost recovery;
  - Prices charged must not be more than £26 per unit of EPO and £9 per unit of dialysis fluids;
  - As a result of clients' sensitivity to price, this should be a major factor in determining the preferred Option.

(b) In the light of the forthcoming audit visit and recent letter received, an assessment of the audit implications of the weaknesses in control, the poor practices and the operational risks at the Boothill Store Clinic. It should be noted that the Chief Executive has particularly asked for a detailed response on these issues.(10 marks – A 10)

- As background, a note of the imminent audit visit and the letter received.
- A note of the of the various management, systems and operational shortcomings and the audit implications of these –

  - Management & staffing
    - The store appears to have been "forgotten"; 4,10
    - The current Store Manager, Mr Nat Tells, is on a protected salary and being paid well above the rate for the job, but there seems to have been no attempt to find a more suitably graded post for him; 10
    - Mr Nat Tells has a previous record of poor administration (or worse) and was removed from a former post for this reason; 10
    - Payroll and Human Resources appear not to have been informed of absences from work; 5,10
    - In relation to Mick Spreader's appointment, Mr Nat Tells appears not to have followed normal appointment procedures in terms of formal application, interview and Human Resources involvement; 5
    - *Audit implications –*
      - *Lack of management control/monitoring;*
      - *Operational costs – potential cash flow costs, stock write-offs etc.;*
      - *Value for money – Manager's salary higher than warranted;*
      - *Regulation breach – absence from work;*
      - *Legal challenge and tribunal costs – appointment procedures.*
  - Contracts
    - Contract procedures set out in Financial Regulations have not been followed; 12,15
    - There has been no formal advertisement of the contracts and selection was merely on the basis of just 2 quotations – cheapest appointed; 12
    - Original supplier went into administration very quickly (financial appraisal?) and the second supplier appointed; 12,15
    - There is no formal contract in place, so there is no time-limit on the supply "agreement", no periodic testing of the market and no formal review of terms; 12,15
    - Price increases are merely "discussed" periodically; 12,15
    - *Audit implications –*
      - *Breach of regulations – Challenge by other suppliers and cost implications as regards having to tender again;*
      - *Value for money – Potentially over-paying for goods supplied.*
  - Ordering/Invoices
    - No written orders for supplies are issued - in some cases verbal telephone orders are placed, in others a fixed periodic (standing) order basis is used; 5
    - The Store Manager takes most deliveries himself, as the drivers are generally away from the store when these arrive; 5,20
    - The Store Manager approves for payment all invoices received; 20
    - Invoices tend to be paid late; 12
    - *Audit implications –*
      - *Systems risk – no separation of duties and a clear lack of internal control;*
      - *Current systems provide the potential for fraud with its cost and insurance implications;*
      - *Late payment – regulation breach with potential cost implications and even loss of supplier.*

- Stock Control/Delivery
  - There is a manual stock recording system, but this is not up to date, with piles of delivery and issue notes stacked on Mr Nat Tells desk; 5,20
  - There is no evidence of periodic stock checks against the manual stock cards; 20
  - There is no evidence of annual stock-take, merely a "guesstimate"; 20
  - The delivery vans are old, costly to maintain and probably need to be replaced 20
  - *Audit implications –*
    - *Operational risk – Lack of updated records leading to potential short supplies and a failure to meet hospital needs*
    - *Fraud and irregularities – poor records and stock control systems*
    - *Incorrect accounts – lack of stock take and reconciliation to records*
    - *Operational risk and value for money – old vehicles liable to breakdown.*
- Billing
  - Invoicing has never been good 18
  - It is now significantly in arrears; 5,18
  - Invoices produced often contain arithmetic errors and have to be returned; 18
  - *Audit implications –*
    - *Cash flow costs – poor invoicing/recovery of debts*
    - *Errors – potential cost implications.*
- Budget & Costing
  - The Store manager's budget does not reflect full costs (peppercorn rent, no apportionment of clinic running costs, no central support costs); 7,13,17,20
  - As a results, costs (and prices charged) do not reflect full costs
  - *Audit implications –*
    - *Lack of management control/monitoring on budgeting*
    - *Systems weaknesses re identification and allocation of relevant costs*
    - *Loss of income – pricing does not reflect full recovery of costs;*
    - *Other functions are having to bear unrecovered costs;*

- Overall, therefore, there is considerable evidence of weak controls, poor practices and operational risk at the Boothill Store and the need for significant changes before the audit visit, if the satellite store is to be retained.

(c) Revision of the Boothill Store Budget to take account of the full costs of its operation, calculation of the overhead oncost to the purchase price of EPO and dialysis fluids and a comparison of the resultant costs per unit with those established by the Store Manager. (5 marks – C 5)

- Calculation of the additional budget costs as follows –
  - Staffing – NI and pension on salary and wages costs;
  - Rent & rates – commercial cost based upon 525 square feet;
  - Utilities/Other premises – apportionment of Boothill Clinic costs based upon 525 out of 2,625 square feet;
  - Telephones - apportionment of Boothill Clinic costs based upon 1 line out of 10;
  - Central Support costs – inclusion of figure provided.
- A statement showing the Revised Budget for the Boothill Store taking account of the above costs.
- Calculation of the revised overhead rate for the Boothill Store.
- Calculation of the cost per pack for EPO and dialysis fluids on the basis of current purchase costs and the revised overhead rates.
- A comparison with the cost per pack calculated by the Store Manager.
- A note of the increases in price resulting.

NOTE For suggested calculations see Appendix 3A.

(d) The apportionment of the Boothill Store revised costs over the two products on the bases given, calculation of the overhead costs relating to each and a comparison of the resultant costs per unit with those established by the Store Manager. (5 marks – C 5)

- Apportionment of overhead costs on the bases given between EPO and dialysis fluids –
  - Driver/Loaders – 45% EPO, 55% dialysis fluids;
  - Rent & Rates/Other Premises – 30% EPO, 70% dialysis fluids;
  - Utilities - 40% EPO, 60% dialysis fluids;
  - Running costs of vans - 45% EPO, 55% dialysis fluids;
  - Equipment (refrigerators) – 100% EPO;
  - All other overheads and central support costs – pro rata to expenditure on the above overheads.
- A statement showing the total overhead charge for EPO and dialysis fluids.
- Calculation of the revised overhead rate per pack for the Boothill Store.
- Calculation of the price per pack for EPO and dialysis fluids on the basis of current purchase prices and the revised overhead rates for EPO and dialysis fluids.
- Calculation of the total cost per pack of EPO and dialysis fluids using the above overhead rates.
- A comparison of the result with the cost per unit calculated by the Store Manager.
- A note that the price of EPO is less (18p or 0.7% per unit) and that of dialysis fluids is more (67p or 7.4% per unit).

NOTE For suggested calculations see Appendix 3B.

(e) A financial evaluation of the two options proposed in the light of the criteria set for the exercise, including an initial costing of both options, the testing of the EPO delivery arrangements on the costs of Option 2 using EOQ techniques and an appraisal of the results of this exercise. (6 marks – C 6)

- Costing of the external purchase/delivery of dialysis fluids under Option 2 and the cost per pack involved.
- Costing of the Central Dispensary for purchase and distribution of EPO, on the basis of the current (4 per annum) delivery arrangements in place, taking account of -
  - Order and delivery costs at £23.10 per order and £400.00 per delivery respectively;
  - Holding costs at £11.00 per pack per annum;
  - The purchase cost of EPO at £25.00 per pack, less 1% large order discount (=£24.75).
- A note of the resultant cost and unit cost per pack with an indication that for EPO these are above the current costs under Option 1.
- The application of EOQ techniques to test the current order strategy and an interpretation of the results achieved.
- From the above, the determination of a more economic order quantity and order frequency.
- A note that the order quantities resulting are below the large order discount level and that the cost per pack will therefore be £25.
- On the basis of these revised delivery arrangements, re-costing of the Central Dispensary option for purchase and distribution of EPO using the same methodology outlined above.
- A note of the resultant cost and unit cost per pack of EPO.
- A summary of the results for both Options, showing for Option 2 the costs resulting from the original and revised delivery arrangements.

NOTE For suggested calculations see Appendix 3C.

(f) Conclusions and recommendations on the basis of the criteria set and taking account of all financial and non-financial factors. (4 marks – R 4)

- A note that the Store Manager's charges per pack for EPO and dialysis fluids –
  - Did not take account of all relevant costs;
  - Were therefore understated on the basis of an overall overhead charge by 39p and 11p per pack respectively.
- A comment that a more accurate approach is to apportion overheads to each product separately.
- A note that, in comparison with the Store Manager's prices, this revised methodology produces a reduced charge per pack for EPO (14p less) and a higher charge per pack for dialysis fluids (66p more).
- A comparison of the costs and pack prices produced by Options 1 and 2 –
  - A note that for dialysis fluids the supplier delivered charge (Option 2) at £9.00 per pack is marginally less than the true cost of £9.01 in respect of the Boothill Store operation;
  - A note that, on the current delivery basis (4 times per annum), the Central Dispensary delivered service at £26.37 is more expensive than the Boothill Clinic delivered service at £25.66;
  - An explanation, however, that, on the basis of the revised delivery arrangements (26 times per annum), the Central Dispensary delivered service at £25.63 is marginally less than the Boothill Store delivered service at £25.66.
- Conclusion that, on the basis of the revised Central Dispensary delivered service, there is little to choose between the two Options in terms of the cost per pack for either EPO or dialysis fluids.
- Candidates may note that if the excess costs of employing Mr Tells as store manager were eliminated a further £15,180 pa could be saved in respect of Option 1, which would make it significantly cheaper than Option 2. However this cannot be put forward as a definite outcome given the Trust's contractual obligations to Mr Tells.
- A comment that, in these circumstances, non-financial factors take on increased significance.
- A note of issues favouring retention of the Boothill operation –
  - No redeployment/retraining of staff and no risk of redundancy costs (but additional training will still be needed to bring the Boothill store administration to an acceptable standard);
  - A delivery system that works well;
  - Good working relationships with current clients;
  - The possibility of reducing costs (new manager with lower salary and no disturbance travelling, purchase of refrigerators);
  - No disturbance to the Central Dispensary, where there is some resistance to the change.
- A note of issues favouring the revised arrangements –
  - The control weaknesses and poor practices apparent in the Boothill Store;
  - The difficulty of correcting these weaknesses quickly and permanently in view of the record of the current Store Manager in these areas;
  - Centralisation, which brings with it strong internal controls and systems;
  - The avoidance of duplication as regards delivery to Royal Riverside UHT premises and clients;
  - The possibility of being able to achieve lower costs through negotiation of existing rates with suppliers used for other products, or re-tendering of the existing contracts (possibly packaged with other supply products to encourage competitive bids).

- Conclusion that, on balance, Option 2 solves more problems and creates more opportunities.
- Recommendation that Option 2 is implemented with effect from 1 January 2006. Candidates may also make recommendations in relation to interim management and control arrangements.

(g) Presentation, format, tact and general readability. (3 marks – P 3)