King's Fund

GUERNSEY SOCIAL SECURITY AUTHORITY

REVIEW OF PHARMACEUTICAL SERVICES

IN

GUERNSEY AND ALDERNEY

Report

August 1997

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CONTENTS

EXECUTIVE SUMMARY

It is becoming increasingly clear that health care delivery in the 21st Century will be significantly different from today. The major driving forces that are creating new demands, and requiring different responses from health services are:

- medical technological advances being made at an accelerating rate;
- new medicines and new drug delivery systems;
- emphasis on evidence based practice;
- advances in information technology resulting in more localised decision making, at the 'bedside' or in the patient's home;
- advances in communication technology which has brought us telemedicine;
- growing number of elderly people in our population;
- increasing public knowledge and expectations;
- shift towards a greater primary care focus and changing role of secondary care.

The future health care environment will require speedy responses from organisations where roles and responsibilities will need to be flexible with greater level of multidisciplinary and team working with the need to manage 'seamlessly' across organisational boundaries. This will present a key challenge to the health and social care organisations and health professionals in Guernsey in setting their strategic direction for the future.

Chronic disease is primarily managed by medicines. However, medicines are of little value if they are taken inappropriately. Medicine management has been defined as "facilitating maximal benefit and minimal risk from medicines for an individual patient". Medicines are becoming increasingly complex, yet evidence of poor compliance, wastage and inappropriate medication regimens suggest that pharmacists and prescribers need to work more effectively together to ensure that the patients get the best from their medicines.

In August 1996, the King's Fund was commissioned by Guernsey Social Security Authority (GSSA) to review prescribing patterns in Guernsey and Alderney and assist in the formulation of a longer term strategy for medicine management including rational and cost effective prescribing. The main aims of the review were to:

- To conduct a review of GP and Specialist prescribing in order to obtain a baseline understanding of prescribing patterns and costs;

- To identify potential savings within the current spending patterns;

- To explore suitable performance indicators for prescribing which could be utilised as comparators with prescribing in the UK;

- To provide recommendations for the rational and cost effective use of medicines in primary and secondary care sectors;

- To help develop a more informed approach to effective medicine management;

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- To foster an integrated approach to the management of medicines in primary and secondary care sectors.
- To assist with the development of a strategy for the rational and cost effective use and supply of medicines in Guernsey and Alderney for the period 1997-2001.

The King's Fund team comprised Naaz Coker (project co-ordinator) and David Knowles and Dave Roberts (from the Prescribing Support Unit). Analytical support was provided by the Prescribing Support Unit in Leeds which was established by the NHS Executive in England with the primary purpose of providing dedicated analytical support for policy initiatives directed at improving the cost effectiveness of prescribing in England.

We describe the approach, findings and analysis of the review of the pharmaceutical services in Guernsey and Alderney with the main focus on analysing the current prescribing patterns and relationships within the health system on the Islands. It represents the product of visits, meetings, studies and analysis conducted over a five month period between September 1996 and January 1997. Prescribing data gathered from the Prescription Pricing Authority and population and consultation data obtained from the GSSA was analysed and appropriate performance indicators applied. Throughout the report, all references to Guernsey, unless otherwise stated, include Alderney.

During the period of the review, we had the opportunity to meet with many key players, individually or in groups. We discussed the nature of the review and potential outcomes with the pharmacy members of the local branch of the Pharmaceutical Society, the BMA Pharmaceutical Sub-Committee, the Primary Care Doctors and other members of their team from the Healthcare Group, the Queen's Road Medical Practice and L'Aumone and St Sampsons Medical Practice.

Key Findings and Analysis

Data from the prescription forms collected and aggregated by the PPA was used; no patient data, diagnostic or outcome information was collected. We were therefore limited to producing prescribing indicators from this data only in order to assess the quality of prescribing. We also compared one group of practitioners' performance on these indicators with other groups in order to assess average or extreme prescribing behaviour. It is important to remember these caveats when attempting to draw conclusions from this report.

Section 5 compares the prescribing of Guernsey prescribing as a whole with the Health Authorities in England on a variety of performance indicators. These indicators have been endorsed by the NHS Executive in England following a report on prescribing by the Audit Commission. ***This section should be read in conjunction with Appendix One.***

Section 6 compares the prescribing performance of individual practices in Guernsey and Alderney using similar indicators. ***This section should be read in conjunction with Appendix Two.***

Section 7 is concerned with a specific indicator, the generic prescribing rate, and provides information on how large savings could be generated by doctors prescribing generic alternatives to branded products. ***This section should be read in conjunction with Appendix Three.***

Prescribing has historically been measured in terms of three rates; *cost per patient, items per patient, and cost per item,* where cost refers to the net ingredient cost of the drugs prescribed; the patient denominator refers to the total population supported by the general practitioners involved, and the item refers to the numbers of individual prescriptions written. The Prescribing Support Unit has spent a considerable time attempting to develop and refine these measures.

Prescribing need is influenced by the age and sex structure of the population, and therefore these factors have to be allowed for when comparing the prescribing performance of groups of practitioners. The PPA currently uses the 'Prescribing Unit' (PU) where patients aged 65 or over count as 3 PUs, and patients aged under 65 count as 1 PU, giving a crude allowance for the fact that the 'elderly' cost more in prescription drugs over a specified time period than the 'young'.

A system has been developed called the ASTRO-PU (Age Sex and Temporary Resident Originated Prescribing Unit) that weights for nine age bands for each sex and for temporary residents, and should be used for overall prescribing. More recently, similar cost weightings for specific therapeutic groups (STAR-PUs) have been established, as each group has a different age/sex distribution of use. Cardiovascular drug costs are particularly high in the elderly, endocrine drugs costs are higher for women while antibiotics are given relatively equally for all age and sex groups.

These denominators are used appropriately in this report, and therefore variations in performance on the indicators presented are almost certainly not due to different demographics of the populations involved. The populations used in this document are taken from the ONS 1996 projections for England, based on the 1991 Census, and the 1996 Census populations for Guernsey.

Defined Daily Doses (DDDs) provide a better way of measuring volume than simply adding the number of items, as an item may be for 6 or 600 tablets. A DDD reflects the typical adult maintenance dose of a drug per day as set by the World Health Organisation. The DDD for ranitidine, for example, is 300mg. This does not imply that all patients should receive 300mg per day, but looking at the number of DDDs given to a population gives a reasonable estimate of the rate at which ranitidine is given. ASTRO-PUs, STAR-PUs and DDDs have been used in the subsequent analyses as the most appropriate measures for suitable comparisons to be made.

Cost and Frequency of Prescribing

Over the last two years, prescription costs and items in Guernsey have shown a similar pattern of increase to that in England. Between 1994/95 and 1995/96 cost inflation in England was 8.17%, compared with 7.86% in Guernsey. The frequency of prescribing as measured by the number of items rose in England by 2.75%, and in Guernsey by 1.66%. The majority of

the increase in costs for both England and Guernsey is therefore due to more expensive items. This suggests the prescribing of either more expensive alternative drug therapies, a shift of prescribing to more expensive areas, new drug treatments, price inflation, or prescriptions of larger volume. The latter of these cannot reasonably be expected to be the reason in Guernsey given that the item period is restricted to 30 days.

In 1995/96, the cost of prescription drugs per head of population as measured by census figures was £76 in England and £111 in Guernsey (+41%). (These figures allow for the fact that doctors in Guernsey do not prescribe Incontinence Appliances, Stoma Appliances, or contraceptives on GSSA PS6 prescriptions). **If Guernsey had prescribed at the same rate as England, the drugs bill would have been £4,618,000 as opposed to the actual bill of £6,767,000, a difference of £2,149,000.** A further comparison was made with Jersey where cost per head of population over the same time period was £79.

The number of items per population for Guernsey in 1995/96 was 13.0 compared with 9.4 in England. A difference was expected, given that the Guernsey doctors are restricted to prescribing for a maximum of one month while English doctors can prescribe for any duration. However, the average cost per item for Guernsey was £8.51 compared to £8.04 for England.

Therapeutic Group Prescribing

The prescribing of Guernsey was compared with England within the eight major therapeutic groups; gastro-intestinal, cardiovascular, respiratory, central nervous system, infections, endocrine, musculoskeletal, and skin. These eight groups account for 91% of Guernsey prescribing costs. The variables used are cost/STAR-PU and items/STAR-PU, again to allow for any differences in demography between the two populations.

The figures showed that Guernsey and Alderney doctors prescribe more items per age-sex weighted population than their counterparts in England for each of the eight therapeutic groups, and especially in the endocrine system. In terms of cost, Guernsey prescribing is again higher in all the eight groups, and in particular the infections group.

Drugs of Limited Clinical Value

These drugs were identified by the Audit Commission in the UK from recommendations made in the British National Formulary (BNF). These preparations may occasionally be beneficial for certain individual patients, but are generally regarded as relatively ineffective. The level of prescribing of these types of drugs should generally be low. The expenditure on these groups of drugs in Guernsey is high compared to the England average. We have calculated that £61,831 could have been saved in 1995/96 had Guernsey prescribed at the same level as the England average for these drugs.

Expenditure on Premium Price Preparations

Modified release preparations

Modified release preparations release drugs over a longer time period than ordinary tablets. They therefore need to be taken less frequently, e.g. once daily rather then three times a day. They are thought to improve patient compliance, a factor the pharmaceutical industry rely heavily on in marketing, however, as yet there is little evidence to support this. The cost of these preparations is considerably higher than the ordinary tablets, and therefore cost effective prescribing would mean that the use of these agents is low. The prescribing of these agents in Guernsey is moderately high compared with English prescribing and we have calculated that £32,120 could have been saved had prescribing been at the same level as the England average for 1995/95.

Combination products

Combination products contain two or more drugs. The cost of a combination product is usually considerably higher than the individual components. These preparations may offer a slight increase in convenience but there is no therapeutic advantage. Cost effective prescribing would mean that the use of these agents is relatively low. The expenditure in Guernsey on these agents is high when compared to England prescribing and we have calculated that £44,968 could have been saved had the Guernsey prescribing been at the same level as England for 1995/96.

Preventative Drug Prescribing

Evidence based medicine suggests that many prescribing interventions can be made to reduce the incidence of a disease or limit the rate of disease progression. The appropriate use of preventative drugs is therefore to be encouraged. One example of this is the use of inhaled corticosteroids to prevent asthma development. Although this intervention will increase the drugs bill, it is likely to be cost effective in the long run as there should ultimately be a reduction in morbidity and mortality.

The use of inhaled corticosteroids as measured by DDDs per STAR-PU is very similar to the England average. However the most cost effective agents are not being used; the cost/DDD is shown to be relatively high for Guernsey when compared to English Health Authorities. Branded breath actuated inhalers are being used rather then generic metered dose inhalers. If Guernsey and Alderney practices had prescribed the same quantity of inhaled corticosteroids but at the reduced cost per DDD of the England average, we have calculated that a saving of £59,235 could have been made over the period of one year.

Benzodiazepine Prescribing

Patients prescribed benzodiazepines can become dependent and tolerant to their effects. Therefore, they should not be prescribed indiscriminately, and should be reserved for short courses to alleviate acute conditions after causal factors have been established. As a consequence, prescribing of these drugs should be relatively low. The Committee on Safety of Medicines (CSM) has issued guidelines on the prescribing of benzodiazepines. The

prescribing of benzodiazepines as measured by DDDs per STAR-PU is higher in Guernsey than the England average. We have calculated that £4,063 could have been saved had the prescribing in Guernsey been at the same level as England.

Generic Prescribing

It became obvious early in the review that this was an area where, potentially, large savings could be generated without any detriment to patient care, and with the support of the professional groups involved. Guernsey had the lowest generic prescribing rate compared with all the English Health Authorities for the two years, 1994/95 and 1995/96. In 1995/96, the figure for Guernsey was 38% compared with an England average of 56%, while the highest generic prescribing rate for one Health Authority was 66%.

In order to focus on the areas where savings could be generated, we calculated the potential generic savings for every preparation prescribed in Guernsey for the year 1995/96 and then sorted them in terms of the savings potential. ***The top fifty preparations would generate a potential £193,000 for Guernsey in one year.***

The analysis has indicated where specific cost savings could be achieved using only a selection of indicators in particular therapeutic areas when compared to English prescribing. **The potential savings amount to almost £400,000 in one year.** Although we recognise the differences between the two countries in terms of organisational structure, populations, priorities, and funding arrangements for the provision of prescribing services, for illustrative purposes, we have had to compare Guernsey with the England average. In the future, it may be advisable for the professions involved, i.e. doctors and pharmacists, to produce a set of indicators specifically for the analysis of Guernsey prescribing.

However, we have shown that:

- ***the cost and frequency of prescribing has increased at a similar rate for both England and Guernsey over the two years October 1994 to September 1996;***
- ***the cost per head of population for 1995/96 was £76 in England, £79 in Jersey, and £111 in Guernsey. If the prescribing costs on Guernsey and Alderney had been at the same rate as either of the comparators, the drugs bill would have been reduced from £6.8 million to £4.6 million, a saving of £2.2 million.***
- ***analyses suggest these differences are not due to differences in the age-sex structure of the populations of England and Guernsey, nor due to overall morbidity differences. This suggests the main differences are due to doctor preference and their response to patient demand. It has been suggested that the higher rate of prescribing and the high prescribing of premium price preparations is influenced to some degree by patient demand, and the fact that patients have to pay for the consultation and expect something in return.***
- ***the higher costs are apparent in all the major therapeutic groups, and are most likely due to a higher frequency of prescribing and the prescribing of more expensive items.***

- ***differences in performance on six prescribing indicators (comprising five specific drug groups that account for 11% of the total prescribing costs) suggest that savings of around £202,000 could be made over the period of one year if the prescribing in Guernsey was at the same rate as the England average.***

- ***prescribing generic alternatives for fifty branded preparations could save almost £200,000.***

GENERAL OBSERVATIONS AND KEY STRATEGIC ISSUES

During the period of the study, many related issues began to emerge from the meetings and conversations with the prescribers and pharmacists. It became obvious that a broader approach to medicine management would assist in shaping the future debate on prescribing, distribution and funding of prescribed medicines.

Organisation of Health Care Services

Questions have been raised and concerns expressed about the separation of primary and secondary care arrangements between the GSSA and the Board of Health and in particular the differing governance mechanisms for the co-ordination and supervision of these services. While we found reasonable degrees of confidence about the overall quality of health care services, there were clearly strong views that this arrangement resulted in unsatisfactory arrangements for discharge planning and discharge medication, lack of appropriate audit and monitoring functions, duplication of administration and an absence of integrated planning for primary and secondary care.

We recognise that these arrangements are influenced by political considerations and the challenge therefore, is to look for different ways in which the Board of Health and GSSA can work collaboratively to create the conditions for seamless, genuinely integrated care and develop a longer term vision and strategy. The objective would be to ensure that administrative barriers do not inhibit or prevent the achievement of optimal standards of care and outcomes for the population of Guernsey and Alderney.

Generic Prescribing

Analysis of prescribing data clearly indicates the low rate of generic prescribing by doctors. Generic prescribing requires changes in prescribing behaviour on the part of doctors as well as patient education. Although many of the doctors we met claimed to support the concept of generic prescribing, their practice showed otherwise. A way of encouraging doctors to prescribe generically is to give the practices a proportion of the savings they generate through the use of generic names. Pharmacists should be encouraged to use generic labelling and to take enhanced responsibility to ensure that the patients are better informed.

A more contentious approach, but with the potential of realising the savings at a faster rate is through **generic substitution**, whereby a pharmacist is able to substitute a generic alternative for selected brand preparations. Such an initiative would be opposed, we suspect, by the majority of the GPs based on concerns about the quality of generic products purchased by

pharmacists. However, this could be addressed through joint protocols and policies for purchasing with, for example, the hospital pharmacy services providing the quality assurance of the products.

Incentives

All the advice to us indicated that real and significant change to effect both reduced costs and improved services could be generated if there was a willingness to address the issue of incentives for the GPs. The UK experience has confirmed that the prescribing behaviour of GPs does respond to financial incentives. The UK incentive scheme, however, is based on setting a notional or indicative prescribing budget for each practice based on the best estimate of their current prescribing costs. The practices then retain a proportion of their savings for approved purposes such as improved services for the patients or for education and clinical audit. If an incentive scheme could be negotiated for Guernsey and Alderney, our analysis has shown, this would open up other areas for potential savings, in addition to generic prescribing.

Extended role for Pharmacists

Community pharmacists are in the front line of primary care and inevitably deal with a wide range of problems, including frequently being the first port of call for minor ailments and medication advice. The pharmacists we met indicated that many patients did consult the pharmacists for advice and information. The community pharmacists were keen to provide support for monitoring prescribing performance and audit. They saw their future role evolving in the direction of provision of specialist services such as monitoring of anticoagulant therapy, asthma, diabetes and hypertension. The Department of Health in the UK, has recently, established a working group to draw up proposals to give more responsibility to pharmacists. Furthermore, they are exploring changing the rules to allow pharmacists to diagnose and prescribe.

The community pharmacists also have a key role in health promotion and disease prevention. Working collaboratively with the Health Promotion Unit, they should provide additional services such as guidance on smoking cessation, healthy eating and healthy lifestyles, substance abuse, etc. Remuneration for these services would need to be negotiated and could be linked to performance management and audit.

Establishing a Standardised Formulary

We encountered mixed degrees of support for an island wide formulary. Whilst the specialists supported the idea wholeheartedly, some of the GPs had reservations and preferred a practice formulary instead. We believe that the Board of Health is best placed to undertake the development of an island wide formulary which would cover both hospital and primary care practice. There are plenty of examples of good practice in the UK which could be adapted appropriately for use in Guernsey.

Monitoring the Quality of Prescribing

There is no direct way of measuring the quality of Guernsey and Alderney doctors' prescribing using the available data. Each prescription is given to an individual patient, and in order to assess the 'quality' of that prescription, it would be necessary to have access to all relevant information relating to that individual including any other medication they might be taking. Even if the diagnosis were correct, there could still be problems of assessment given that a large percentage of accepted treatments fall short of the ideal of evidence-based medicine.

It has been suggested that there is a correlation between the charge for visiting a GP and the higher prescribing levels found in Guernsey. It is an arrangement which seems to result in over prescribing and this was widely acknowledged by the doctors and pharmacists we met. Indeed, some went further and indicated that they sometimes prescribe to satisfy "customers" (who have paid the consultation fee), even when there is no real clinical justification. The prescribing of "drugs of limited clinical value" is a case in point. Patient education and prescribing audit may partially alleviate the problem. We appreciate that this is a complex issue, but it would appear to be the case that the current system results in inevitable patient pressure that at times produces unavoidable cost pressures with little pharmaceutical benefit to patients other than the placebo effect.

Arrangements for Monitoring Future Prescribing

We feel that rather than being prescriptive in terms of imposed prescribing policies in order to simply generate savings, it is preferable for all **local** constituents to agree to a prescribing agenda while providing prescribers with the advice, information and regular feedback of appropriate data sets. In the UK, this role has been undertaken by medical and pharmaceutical advisers. We are in the arena of attempting to modify behaviour in order to increase patient care in the most cost effective manner and this requires collaboration and agreement at a local level. We are convinced that there is sufficient interest, enthusiasm and expertise among doctors and pharmacists on the Islands to provide prescribing advice without employing advisers from the UK.

A prescribing monitoring unit with clearly defined roles and responsibilities and with clear lines of authority and accountability could provide a local springboard for assuring the quality of prescribing. Staffing of the unit should be from among the professionals on the Island. It is critical that the unit has the backing of all the major players and an agreed agenda to promote the cost effectiveness of prescribing within the Islands. Such a unit could also provide a link between the two agencies on Guernsey and Alderney responsible for the prescribing and administration of drugs. Representatives of both the Board of Health and the Social Security Authority would need to manage the financial and performance aspects of the unit.

Organisation of community pharmacy services

There is considerable diversity in the organisation of existing community pharmacy and dispensing services, ranging from independent community pharmacists to pharmacists operating independently from Practice premises and pharmacists directly employed by the GPs. We understand that there is some "doctor dispensing" but that it is being gradually

phased out. It was suggested to us by some that this organisational diversity is a strength enabling innovation and constructive entrepreneurialism. However, it was also indicated by many pharmacists that it constituted a weakness for two main reasons. Firstly that it leads to variable standards of service, making it difficult to measure performance of the whole system and secondly it leaves the provision of community pharmacy service vulnerable to organisational change which might not be in the best interest of the community. Furthermore it has created intra-professional tensions resulting in lack of trust and collaborative working among the pharmacists. We did not undertake a detailed review of the existing different organisational models for the provision of community pharmacy services but would suggest that such a review could be initiated locally. The purpose of such a review would be :

- to examine the differences in the quality and range of services provided to patients under the different dispensing arrangements;

- to identify differences in total dispensing costs under the different dispensing arrangements i.e. between independent community pharmacies and Practice based pharmacies;

- to explore the optimal organisational model for the provision of community pharmacy services that would be acceptable to the pharmacists and the public.

Information and Information Technology

It is vital for audit purposes that appropriate and timely information is made available to all professionals involved in the prescribing process. It is therefore essential that appropriate information technology solutions are sought in order to link the various constituents and provide them with relevant information once the requirements for the data sets are finalised. It is possible to link prescribers, pharmacists, GSSA and PPA in a single network which would enable the PPA to provide prescribing information to the GP practices electronically. A single network would enable the health care professionals to share a single medical/pharmaceutical record and lead to improved communications between them.

Involving the wider health system

Within the constraints of our terms of reference and time availability, we did not speak to other key players in the health system such as nurses (with the exception of one practice nurse) and patients. Clearly any future changes in service delivery should involve all the major players including patients and their carers. Such inclusion, where appropriate can enrich the process and enable creative solutions to be generated. Studies in the UK have indicated that patients do have an interest in taking part in decisions and choices about their care and treatment and that their experiences can be used to monitor and improve quality of care. We would encourage a prescribing performance unit to ensure that patients participate in decision making that affects their access and quality of care.

Recommendations

Our main recommendations focus on developing a process and providing a structure that would enable all interested parties to produce a locally agreed agenda for prescribing into the next millennium.

We propose that a prescribing performance unit be constituted at the earliest opportunity. Such a unit should be the responsibility of a steering group comprising representatives from both the Board of Health and the GSSA. The key functions and responsibilities of such a unit would be:

- the development and introduction of an island wide formulary;
- the encouragement and support of consortium purchasing of formulary drugs for the whole Island;
- the promotion and monitoring of generic prescribing;
- monitoring the introduction of new drugs and their effect on the drugs bill, while providing prescribers with information on which patients will benefit from their use;
- priority setting to address prescribing in specific therapeutic areas;
- the production of locally agreed prescribing indicators, in order to monitor the performance of prescribers;
- the provision of up-to-date prescribing advice to all prescribers through the production of a local bulletin, or by distributing already available literature, e.g. Drugs and Therapeutics bulletin, or MeReC bulletin.

The size and staffing of such a unit would obviously be dependent on available resources, in the knowledge that potential savings are available within the existing drugs bill to recoup a small salary bill several times over. However we would encourage the appointment on a sessional basis, of a local pharmacist and doctor to act as medical and pharmaceutical advisers to the unit. The unit would require, in addition, administrative and IT support. It may be necessary, initially to obtain additional external support and advice to get the unit functioning.

Notional drug budgets for individual practices should be introduced, based in part on the needs of the respective populations and part historic prescribing patterns, in order to monitor prescribing performance. The establishment of such budgets will initially require assistance from agencies such as the Prescribing Support Unit in the UK until local expertise is developed.

An incentive scheme should be developed whereby performance against the notional budget and specified indicators, such as generic prescribing rates, may result in part of the savings

being made available to the prescribing and dispensing community for activities and services that will further benefit patient care.

The GSSA with the Board of Health should undertake health needs assessment of the practice populations in order to more accurately define the reasons for the differences in prescribing between the practices, and to highlight areas where these differences are due to doctor preference rather than patient need.

The GSSA and the Board of Health should continue to find ways of working collaboratively in this venture to create conditions for integrated care and the development of a shared vision and strategy to maximise the health of the people of Guernsey and Alderney.

1.0 Introduction

1.1 In August 1996, the King's Fund was commissioned by Guernsey Social Security Authority (GSSA) to review prescribing patterns in Guernsey and Alderney and assist in the formulation of a longer term strategy for medicine management including rational and cost effective prescribing. The main aims of the review were to:

- To conduct a review of GP and Specialist prescribing in order to obtain a baseline understanding of prescribing patterns and costs;
- To identify potential savings within the current spending patterns;
- To explore suitable performance indicators for prescribing which could be utilised as comparators with prescribing in the UK;
- To provide recommendations for the rational and cost effective use of medicines in primary and secondary care sectors;
- To help develop a more informed approach to effective medicine management;
- To foster an integrated approach to the management of medicines in primary and secondary care sectors.
- To assist with the development of a strategy for the rational and cost effective use and supply of medicines in Guernsey and Alderney for the period 1997-2001.

1.2 The King's Fund team comprised Naaz Coker (project co-ordinator) and David Knowles and Dave Roberts (from the Prescribing Support Unit). Analytical support was provided by the Prescribing Support Unit in Leeds which was established by the NHS Executive in England with the primary purpose of providing dedicated analytical support for policy initiatives directed at improving the cost effectiveness of prescribing in England.

1.3 From the outset, we were aware of the significance of this exercise for the GSSA. Prescribing costs on the Islands were increasing and there was concern that without appropriate interventions, these costs could escalate rapidly. Furthermore, the GSSA wished to identify levers to effect change, particularly with a view to improving the quality of medicine management. It also became apparent that the pharmacists and some of the prescribers considered this review to be appropriate and timely.

1.4 It is becoming increasingly clear that health care delivery in the 21st Century will be significantly different from today. The major driving forces that are creating new demands, and requiring different responses from health services are:

* medical technological advances being made at an accelerating rate;
* new medicines and new drug delivery systems;

- emphasis on evidence based practice;
- advances in information technology resulting in more localised decision making, at the 'bedside' or in the patient's home;
- advances in communication technology which has brought us telemedicine;
- growing number of elderly people in our population;
- increasing public knowledge and expectations;
- shift towards a greater primary care focus and changing role of secondary care.

1.5 The future health care environment will require speedy responses from organisations where roles and responsibilities will need to be flexible with greater level of multidisciplinary and team working with the need to manage 'seamlessly' across organisational boundaries. This will present a key challenge to the organisations and health professionals in Guernsey and addressing that to a certain extent inevitably became a part of this review.

1.6 This report describes the approach, findings, analysis of the review of the pharmaceutical services in Guernsey and Alderney with the main focus on analysing the current prescribing patterns and relationships within the health system on the Islands. It represents the product of visits, meetings, studies and analysis conducted over a five month period between September 1996 and January 1997. Prescribing data gathered from the Prescription Pricing Authority and population and consultation data obtained from the GSSA was analysed and appropriate performance indicators applied. Throughout the report, all references to Guernsey, unless otherwise stated, include Alderney.

1.7 During the period of the study, many related issues began to emerge from the meetings and conversations with the prescribers and pharmacists. It became obvious that a broader approach to medicine management would assist in shaping the future debate on prescribing, distribution and funding of prescribed medicines.

2.0 APPROACH AND METHODOLOGY

2.1 The review was undertaken in phases outlined below:

Phase 1

- ⇒ Meeting with the key people in GSSA to establish the project advisory group, agree the approach, work plan and time scale;
- ⇒ Initial fact finding and information gathering to develop an understanding of the health and social care system in Guernsey and Alderney;
- ⇒ Introductory meetings with the key players in the health system to obtain their views and expectations about the proposed review.

Phase 2

- ⇒ Conducting site visits, meetings with doctors, pharmacists, practice managers and nurses in groups and individually;
- ⇒ Exploring constituent perception of existing services, prescribing patterns and costs as well as their thoughts and views about the review;
- ⇒ Collection and analysis of Guernsey data from the Prescription Pricing Authority (PPA);
- ⇒ Feedback of the preliminary analysis to the General Practitioners to test its effect and to seek their ideas and suggestions for developing Guernsey specific prescribing indicators.

Phase 3

- ⇒ Completion of data analysis;
- ⇒ Drafting of initial recommendations;
- ⇒ Submission of draft report.

Phase 4

- ⇒ Amendment of report according to responses received from key players;
- ⇒ Production and dissemination of the final report.

2.2 During the period of the review, we had the opportunity to meet with many key players, individually or in groups (listed overleaf). We discussed the nature of the review and potential outcomes with the pharmacy members of the local branch of the Pharmaceutical Society, the BMA Pharmaceutical Sub-Committee, the Primary Care Doctors and other members of their team from the Healthcare Group, the Queen's Road Medical Practice and L'Aumone and St Sampsons Medical Practice.

2.3 Persons Consulted and Interviewed

William Armstrong, Medical Advisor

Hugh Bacon, Ophthalmic Specialist

Mike De La Mare, Supervisor, Health Benefits Section, GSSA

Ed Freestone, Chief Pharmacist, Princess Elizabeth Hospital

Alan Hodgkinson, Chief Executive, Department of Health

David Jeffs, Director of Public Health

Stephen Langford, Deputy Administrator, Benefits, GSSA

Carol Le Page, Assistant Administrator, Health Benefits, GSSA

Conseiller Laurie Morgan, President, GSSA

Malcolm Nutley, Administrator, GSSA

Barry Paige, Community Pharmacist

Stephen Smith, Community Pharmacist

Catharine Walter, Practice Manager, Healthcare Group

Tony Weaver, Community Pharmacist

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Primary Care Doctors from the Healthcare Group

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3.0 KEY ISSUES ARISING FROM OUR REVIEW

3.1 This section of our report draws attention to a number of issues which reflect on our conversations with pharmacists, doctors and others in Guernsey which we consider important both in context of our terms of reference and in relation to health care services more generally.

Organisation of Health Care Services in Guernsey

3.2 A major concern raised by almost every one we met was the separation of the responsibilities for primary and secondary care services between the GSSA and Board of Health and the consequential difficulties in ensuring effective, co-ordinated and consistent policies. While we found reasonable degrees of confidence about the overall quality of health care services, there were clearly strong views that this separation of responsibilities resulted in unsatisfactory arrangements for discharge planning and discharge medication, lack of appropriate audit and monitoring functions, duplication of administration and an absence of integrated planning for primary and secondary care. An obvious and relevant example relates to the separate funding of drug costs, which leads to cost inefficiencies.

3.3 The perception, as we have reported it, was consistently expressed and therefore, has significance. It is however, appropriate to acknowledge that we observed real commitment from officers of the GSSA and the Board of Health to work collaboratively and we had evidence of effective working relationships. Nevertheless, in a relatively small community the organisational separation of primary and secondary health services was, from our perspective, surprising. There was clear advocacy from both the GPs and the pharmacists for, what is referred to in the UK and other Western European and North American countries, a primary care led health delivery system which requires an integrated approach.

3.4 There is general acknowledgement that conceptually health care provision should focus on the notion of "Health Gain", however, that is not seen to be realistic in circumstances in which there is separation of responsibilities for different aspects of health delivery. Many doctors felt that fundamentally the GSSA is not an organisation that is geared to managing health care professionals; nor can it be seen to be the driver and visionary for Health Gain in its broadest sense. A challenge therefore, would be to look for different ways in which the Board of Health and GSSA can work collaboratively to create the conditions for seamless, genuinely integrated care and develop a longer term vision and strategy. The objective would be to ensure that administrative barriers do not inhibit or prevent the achievement of optimal standards of care and outcomes for the population of Guernsey and Alderney. To have pursued this issue and indeed to comment further in this report would take us well beyond our terms of reference.

Generic Prescribing

3.5 Analysis of prescribing data clearly indicates the low rate of generic prescribing by doctors. The findings in section 7 show how savings of almost £200,000 can be

generated by doctors in Guernsey and Alderney prescribing generic alternatives for fifty branded preparations. Generic prescribing requires changes in prescribing behaviour on the part of doctors as well as patient education. Although many of the doctors we met claimed to support the concept of generic prescribing, their practice showed otherwise. A way of encouraging doctors to prescribe generically is to give the practices a proportion of the savings they generate through the use of generic names. Pharmacists should be encouraged to use generic labelling and to take enhanced responsibility to ensure that the patients are better informed.

3.6 A more contentious approach, but with the potential of realising the savings at a faster rate is through **generic substitution**, whereby a pharmacist is able to substitute a generic alternative for selected brand preparations. Such an initiative would be opposed, we suspect, by the majority of the GPs based on concerns about the quality of generic products purchased by pharmacists. However, this could be addressed through joint protocols and policies for purchasing with, for example, the hospital pharmacy services providing the quality assurance of the products. A list of the top fifty preparations identified in Section 7 provides a basis for considering this option.

Incentives

3.7 All the advice to us indicated that real and significant change to effect both reduced costs and improved services could be generated if there was a willingness to address the issue of incentives for the GPs. The UK experience has confirmed that the prescribing behaviour of GPs does respond to financial incentives. The UK incentive scheme, however, is based on setting a notional or indicative prescribing budget for each practice based on the best estimate of their current prescribing costs. The practices then retain a proportion of their savings for approved purposes such as improved services for the patients or for education and clinical audit. If an incentive scheme could be negotiated for Guernsey and Alderney, our analysis has shown, this would open up other areas for potential savings, in addition to generic prescribing.

Extended role for Pharmacists

3.8 Community pharmacists are in the front line of primary care and inevitably deal with a wide range of problems, including frequently being the first port of call for minor ailments and medication advice. The pharmacists we met indicated that many patients did consult the pharmacists for advice and information. The community pharmacists were keen to provide support for monitoring prescribing performance and audit. They saw their future role evolving in the direction of provision of specialist services such as monitoring of anticoagulant therapy, asthma, diabetes and hypertension. The report from Guernsey Branch of the Royal Pharmaceutical Society on the future role of community pharmacy services is included in Appendix Four.

3.9 Chronic disease is primarily managed by medicines. However, medicines are of little value if they are taken inappropriately. Medicine management has been defined as "facilitating maximal benefit and minimal risk from medicines for an individual patient". Medicines are becoming increasingly complex, yet evidence of poor compliance, wastage and inappropriate medication regimens suggest that pharmacists

and prescribers need to work more effectively together to ensure that the patients get the best from their medicines. Patients with chronic conditions, multiple pathologies, special needs or on "high tech" treatments require a greater level of support and advice and the pharmacists are ideally placed to contribute to that support and should be encouraged to do so. The Department of Health in the UK, has recently, established a working group to draw up proposals to give more responsibility to pharmacists. Furthermore, they are exploring changing the rules to allow pharmacists to diagnose and prescribe. The community pharmacists also have a key role in health promotion and disease prevention. Working collaboratively with the Health Promotion Unit, they should provide additional services such as guidance on smoking cessation, healthy eating and healthy lifestyles, substance abuse, etc. Remuneration for these services would need to be negotiated and could be linked to performance management and audit.

Establishing a Standardised Formulary

3.10 We encountered mixed degrees of support for an island wide formulary. Whilst the specialists supported the idea wholeheartedly, some of the GPs had reservations and preferred a practice formulary instead. We believe that the Board of Health is best placed to undertake the development of an island wide formulary which would cover both hospital and primary care practice. There are plenty of examples of good practice in the UK which could be adapted appropriately for use in Guernsey.

Monitoring the Quality of Prescribing

3.11 There is no direct way of measuring the quality of Guernsey and Alderney doctors' prescribing using the available data. Each prescription is given to an individual patient, and in order to assess the 'quality' of that prescription, it would be necessary to have access to all relevant information relating to that individual including any other medication they might be taking. Even if the diagnosis were correct, there could still be problems of assessment given that a large percentage of accepted treatments fall short of the ideal of evidence-based medicine.

3.12 It has been suggested that there is a correlation between the charge for visiting a GP and the higher prescribing levels found in Guernsey. It is an arrangement which seems to result in over prescribing and this was widely acknowledged by the doctors and pharmacists we met. Indeed, some went further and indicated that they sometimes prescribe to satisfy "customers" (who have paid the consultation fee), even when there is no real clinical justification. The prescribing of "drugs of limited clinical value" is a case in point. Patient education and prescribing audit may partially alleviate the problem. We appreciate that this is a complex issue, but it would appear to be the case that the current system results in inevitable patient pressure that at times produces unavoidable cost pressures with little pharmaceutical benefit to patients other than the placebo effect.

Arrangements for Monitoring Future Prescribing

3.13 We feel that rather than being prescriptive in terms of imposed prescribing policies in order to simply generate savings, it is preferable for all **local** constituents to agree to a prescribing agenda while providing prescribers with the advice, information and regular feedback of appropriate data sets. In the UK, this role has been undertaken by medical and pharmaceutical advisers. We are in the arena of attempting to modify behaviour in order to increase patient care in the most cost effective manner and this requires collaboration and agreement at a local level. We are convinced that there is sufficient interest, enthusiasm and expertise among doctors and pharmacists on the Islands to provide prescribing advice without employing advisers from the UK.

3.14 A prescribing monitoring unit with clearly defined roles and responsibilities and with clear lines of authority and accountability could provide a local springboard for assuring the quality of prescribing. Staffing of the unit should be from among the professionals on the Island. It is critical that the unit has the backing of all the major players and an agreed agenda to promote the cost effectiveness of prescribing within the Islands. Such a unit could also provide a link between the two agencies on Guernsey and Alderney responsible for the prescribing and administration of drugs. Representatives of both the Board of Health and the Social Security Authority would need to manage the financial and performance aspects of the unit.

Organisation of community pharmacy services

3.15 There is considerable diversity in the organisation of existing community pharmacy and dispensing services, ranging from independent community pharmacists to pharmacists operating independently from Practice premises and pharmacists directly employed by the GPs. We understand that there is some "doctor dispensing" but that it is being gradually phased out.

3.16 It was suggested to us by some that this organisational diversity is a strength enabling innovation and constructive entrepreneurialism. However, it was also indicated by many pharmacists that it constituted a weakness for two main reasons. Firstly that it leads to variable standards of service, making it difficult to measure performance of the whole system and secondly it leaves the provision of community pharmacy service vulnerable to organisational change which might not be in the best interest of the community. Furthermore it has created intra-professional tensions resulting in lack of trust and collaborative working among the pharmacists. We did not undertake a detailed review of the existing different organisational models for the provision of community pharmacy services but would suggest that such a review could be initiated locally.

Information and Information Technology

3.17 It is vital for audit purposes that appropriate and timely information is made available to all professionals involved in the prescribing process. It is therefore essential that appropriate information technology solutions are sought in order to link the various

constituents and provide them with relevant information once the requirements for the data sets are finalised.

3.18 It is possible to link prescribers, pharmacists, GSSA and PPA in a single network which would enable the PPA to provide prescribing information to the GP practices electronically. A single network would enable the health care professionals to share a single medical/pharmaceutical record and lead to improved communications between them. In addition, the NHS Executive in England is developing a software package called "Prodigy" which sits on top of the prescribers' clinical systems and provides them with 600 guidelines following diagnosis by the GPs and also presents various prescribing options. Such a system would make it easier for prescribers to monitor and audit their own prescribing . The representatives of the Executive indicated to us that they would be willing to provide information and demonstration of the system to Guernsey.

Involving the wider health system

3.18 Within the constraints of our terms of reference and time availability, we did not speak to other key players in the health system such as nurses (with the exception of one practice nurse) and patients. Clearly any future changes in service delivery should involve all the major players including patients and their carers. Such inclusion, where appropriate can enrich the process and enable creative solutions to be generated. Studies in the UK have indicated that patients do have an interest in taking part in decisions and choices about their care and treatment and that their experiences can be used to monitor and improve quality of care. We would encourage a prescribing performance unit to ensure that patients participate in decision making that affects their access and quality of care.

4.0 Data Findings and Analysis

4.1 For the purposes of this review, we used data from the prescription form collected and aggregated by the PPA. No patient data, diagnostic or outcome information was collected. We were therefore limited to producing prescribing indicators from this data in order to assess the quality of prescribing. We also compared one group of practitioners' performance on these indicators with other groups in order to assess average or extreme prescribing behaviour. It is important to remember these caveats when attempting to draw conclusions from the rest of this report.

4.2 Section 5 compares the prescribing of Guernsey prescribing as a whole with the Health Authorities in England on a variety of performance indicators. These indicators have been endorsed by the NHS Executive in England following a report on prescribing by the Audit Commission. ***This section should be read in conjunction with Appendix One.***

Section 6 compares the prescribing performance of individual practices in Guernsey and Alderney using similar indicators. ***This section should be read in conjunction with Appendix Two.***

Section 7 is concerned with a specific indicator, the generic prescribing rate, and provides information on how large savings could be generated by doctors prescribing generic alternatives to branded products. ***This section should be read in conjunction with Appendix Three.***

Prescribing Measures Used in the Report

4.3 Prescribing has historically been measured in terms of three rates; cost per patient, items per patient, and cost per item, where cost refers to the net ingredient cost of the drugs prescribed, the patient denominator refers to the total population supported by the general practitioners involved, and the item refers to the numbers of individual prescriptions written. The Prescribing Support Unit and its predecessor, the Prescribing Research Unit, have spent a considerable time attempting to develop and refine these measures.

Population Figures

4.4 Prescribing need is influenced by the age and sex structure of the population, and therefore these factors have to be allowed for when comparing the prescribing performance of groups of practitioners. The PPA currently uses the 'Prescribing Unit' (PU) where patients aged 65 or over count as 3 PUs, and patients aged under 65 count as 1 PU, giving a crude allowance for the fact that the 'elderly' cost more in prescription drugs over a specified time period than the 'young'.

4.5 A system has been developed called the ASTRO-PU (Age Sex and Temporary Resident Originated Prescribing Unit) that weights for nine age bands for each sex and for temporary residents, and should be used for overall prescribing. More recently, similar cost weightings for specific therapeutic groups (STAR-PUs) have

been established, as each group has a different age/sex distribution of use. Cardiovascular drug costs are particularly high in the elderly, endocrine drugs costs are higher for women while antibiotics are given relatively equally for all age and sex groups.

4.6 These denominators are used appropriately in this report, and therefore variations in performance on the indicators presented are almost certainly not due to different demographics of the populations involved. The populations used in this document are taken from the ONS 1996 projections for England, based on the 1991 Census, and the 1996 Census populations for Guernsey.

Volume

4.7 Defined Daily Doses (DDDs) provide a better way of measuring volume than simply adding the number of items, as an item may be for 6 or 600 tablets. A DDD reflects the typical adult maintenance dose of a drug per day as set by the World Health Organisation. The DDD for ranitidine, for example, is 300mg. This does not imply that all patients should receive 300mg per day, but looking at the number of DDDs given to a population gives a reasonable estimate of the rate at which ranitidine is given. The DDD for cimetidine is 800mg. Although it would not be sensible therefore to add the number of milligrams of these two separate drugs, it is reasonable to add the DDDs of ranitidine and cimetidine, plus those of similar drugs, to get a consumption figure for ulcer healing drugs.

4.8 ASTRO-PUs, STAR-PUs and DDDs have been used in the subsequent analyses as the most appropriate measures for suitable comparisons to be made.

5.0 Cost and Performance of Prescribing in Guernsey & Alderney compared with English Health Authorities

Cost and Frequency of Prescribing

5.1 Over the last two years, prescription costs and items in Guernsey have shown a similar pattern of increase to that in England. Between 1994/95 and 1995/96 cost inflation in England was 8.17%, compared with 7.86% in Guernsey. The frequency of prescribing as measured by the number of items rose in England by 2.75%, and in Guernsey by 1.66%.

5.2 The majority of the increase in costs for both England and Guernsey is therefore due to more expensive items. This suggests the prescribing of either more expensive alternative drug therapies, a shift of prescribing to more expensive areas, new drug treatments, price inflation, or prescriptions of larger volume. The latter of these cannot reasonably be expected to be the reason in Guernsey given that the item period is restricted to 30 days.

5.3 In 1995/96, the cost of prescription drugs per head of population as measured by census figures was £76 in England and £111 in Guernsey (+41%). (These figures allow for the fact that doctors in Guernsey do not prescribe Incontinence Appliances, Stoma Appliances, or contraceptives on GSSA PS6 prescriptions). **If Guernsey had prescribed at the same rate as England, the drugs bill would have been £4,618,000 as opposed to the actual bill of £6,767,000, a difference of £2,149,000.** A further comparison was made with Jersey where cost per head of population over the same time period was £79.

5.4 The number of items per population for Guernsey in 1995/96 was 13.0 compared with 9.4 in England. A difference was expected, given that the Guernsey doctors are restricted to prescribing for a maximum of one month while English doctors can prescribe for any duration. However, the average cost per item for Guernsey was £8.51 compared to £8.04 for England. The higher costs per head of population are therefore associated with a higher frequency of prescribing coupled with more expensive items. The reason for the more expensive items is difficult to determine as it is impossible to even estimate the duration of prescriptions in England. However, as the maximum length in Guernsey is 30 days, it is suggested that whist the quantities may be similar between the two countries, the product mix is different and is more expensive in Guernsey. This suggestion is given further credence by findings documented later in the report showing that Guernsey doctors prescribe higher rates of 'premium price preparations'.

5.5 In order to allow for any differences in demography between the two populations, we have used the ASTRO-PU denominators mentioned earlier. Appendix One (pages 1-4) shows the NIC/ASTRO-PU in the latest two financial years for Guernsey and all Health Authorities in England. This shows that Guernsey has the highest NIC/ASTRO-PU at £29.64 for the latest year against an England average of £20.45, a

difference of 45.2%. The comparative figure for Jersey is approximately £21. It is therefore highly unlikely that the large differences in prescribing costs between Guernsey and England or Jersey are due to the differences in demographics of their respective populations.

5.6 Figures 1 and 2 show that the NIC/ASTRO-PU and items/ASTRO-PU trends by quarter for the two years October 1994 to September 1996. These show that the differences between England and Guernsey have been at a similar rate over this time period. The higher costs are therefore not a recent phenomenon, implying that the higher prescribing costs in Guernsey are inherent in either the prescribing behaviour of the doctors, or reflect different morbidity patterns of the two populations over this time period.

5.7 The variable used to measure the 'need for a prescription' in the prescribing budget setting methodology for English Health Authorities is the percentage of people who report themselves as unable to work because of long term continuous sickness or disability. This is taken from the Census and, as the same question is asked in both the England and Guernsey versions, we are able to compare this variable as a measure of morbidity in the respective populations. The figure for England was 3.53% and 1.78% in Guernsey (provisional figure, 1996 Census).

5.8 These figures suggest that the higher overall costs in Guernsey are not due to higher morbidity as measured by this variable. We did not have the data to compare the two populations on other recognised measures of morbidity such as Standardised Mortality Ratios.

Therapeutic Group Prescribing

5.9 Figures 3 and 4 compare the prescribing of Guernsey with England within the eight major therapeutic groups; gastro-intestinal, cardiovascular, respiratory, central nervous system, infections, endocrine, musculoskeletal, and skin. These eight groups account for 91% of Guernsey prescribing costs. The variables used are cost/STAR-PU and items/STAR-PU, again to allow for any differences in demography between the two populations.

5.10 The figures show that Guernsey and Alderney doctors prescribe more items per age-sex weighted population than their counterparts in England for each of the eight therapeutic groups, and especially in the endocrine system. In terms of cost, Guernsey prescribing is again higher in all the eight groups, and in particular the infections group.

Figure 1 : NIC per Astro-pu 1994-6 for England and Guernsey/Alderney

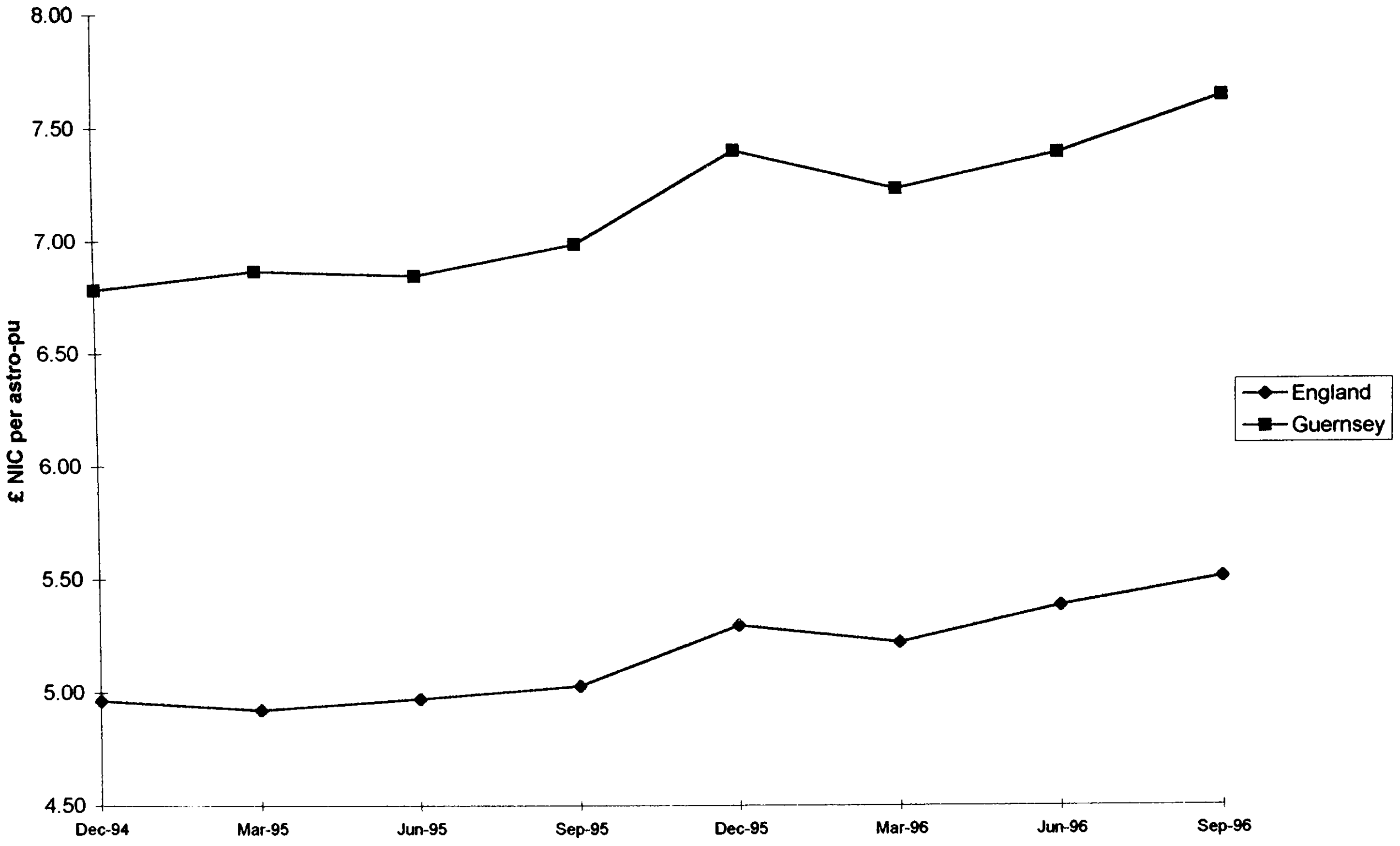


Figure 2.: Items per Astro-pu 1994-6 for England and Guernsey/Alderney

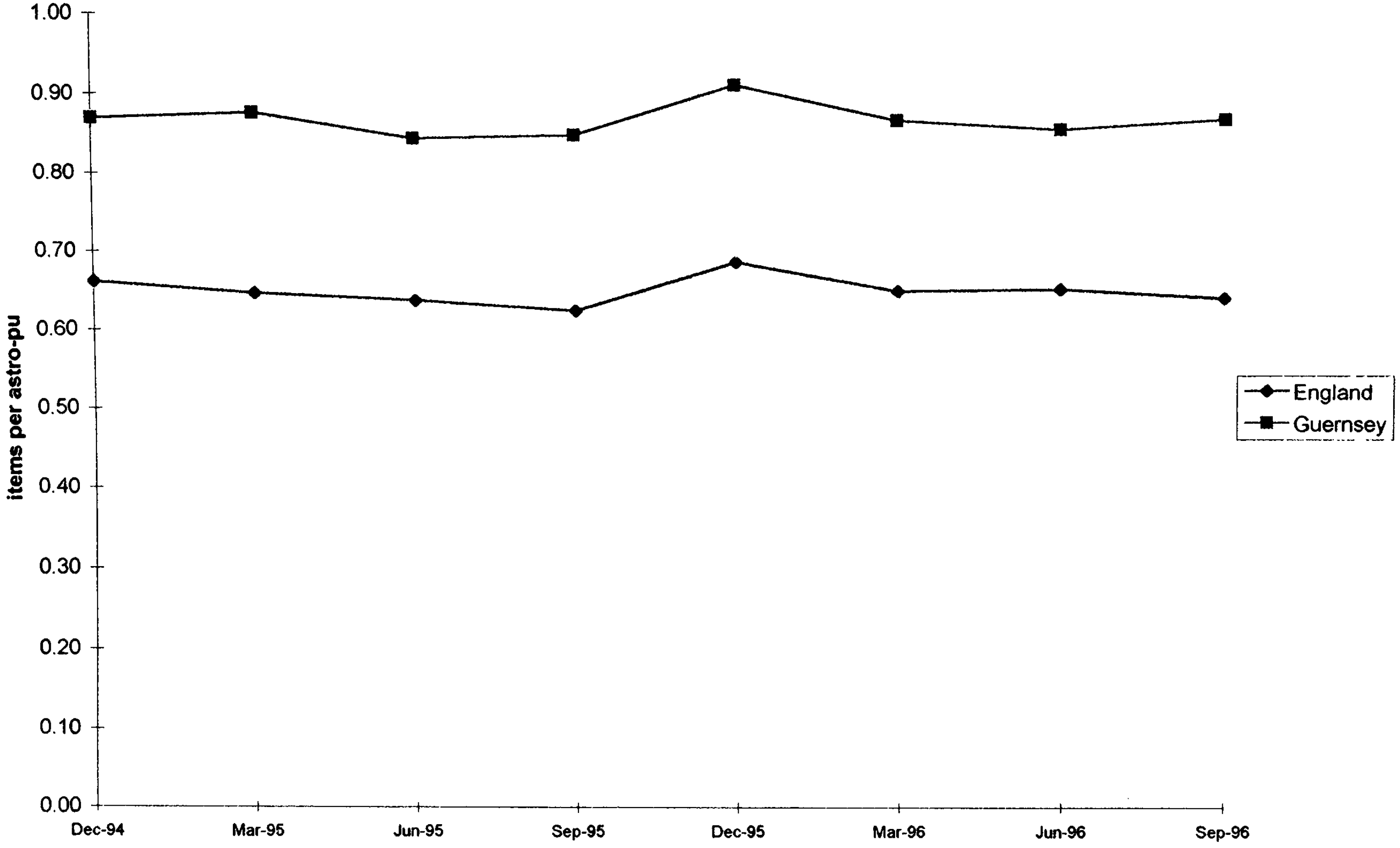


Figure 3 : NIC per Star-pu 1995-6

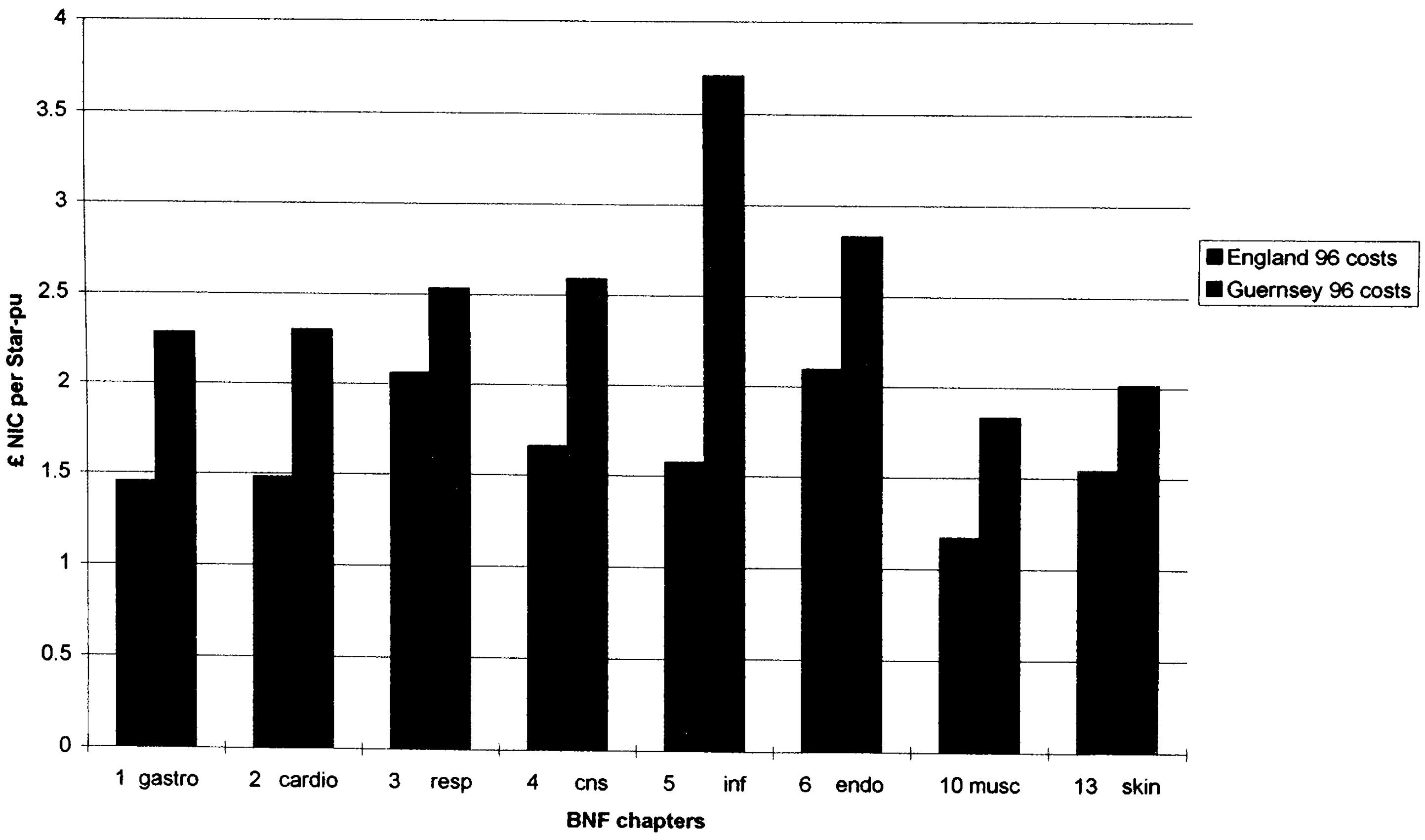


Figure 4 :Items per Star-pu 1995-6

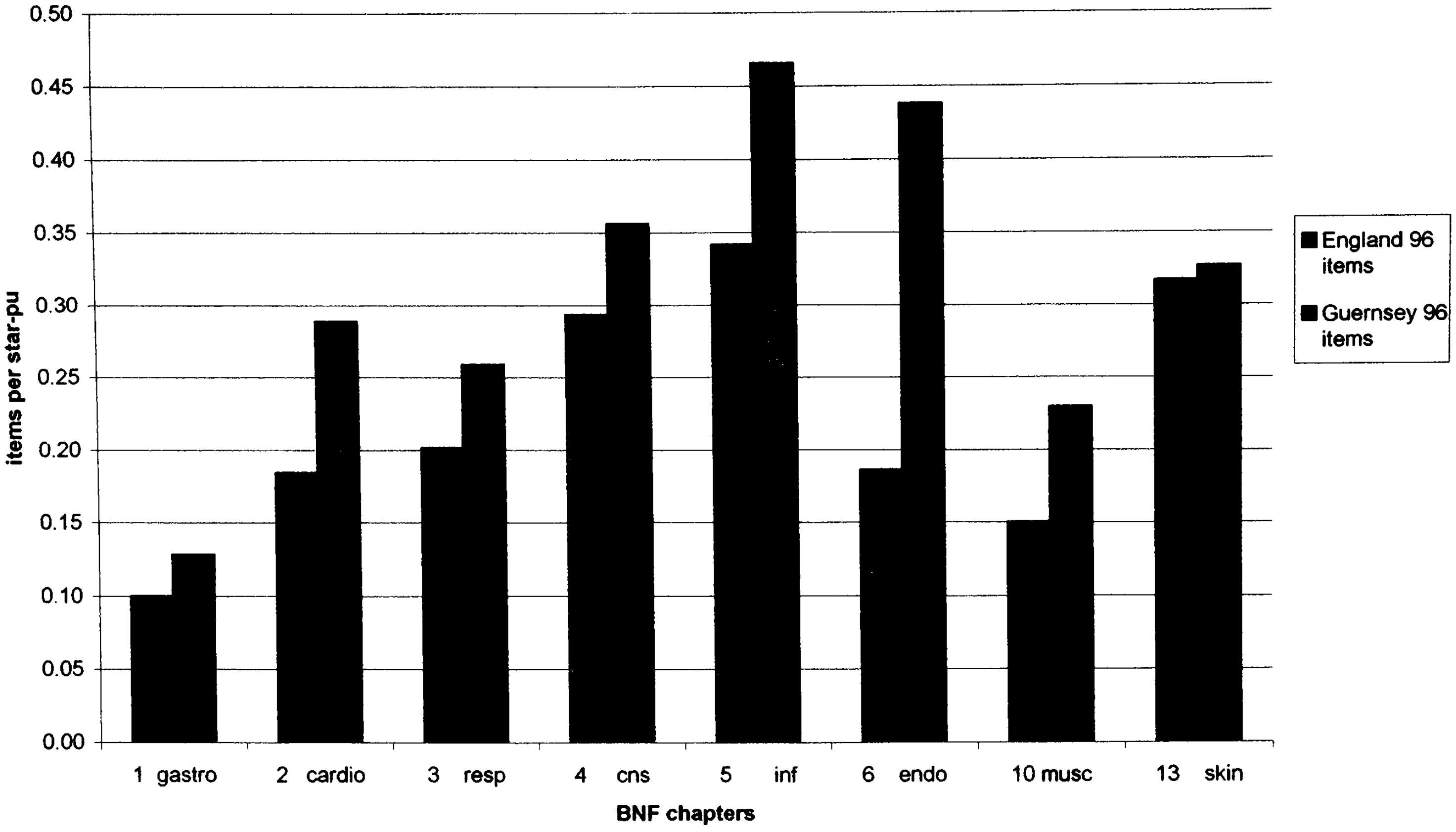
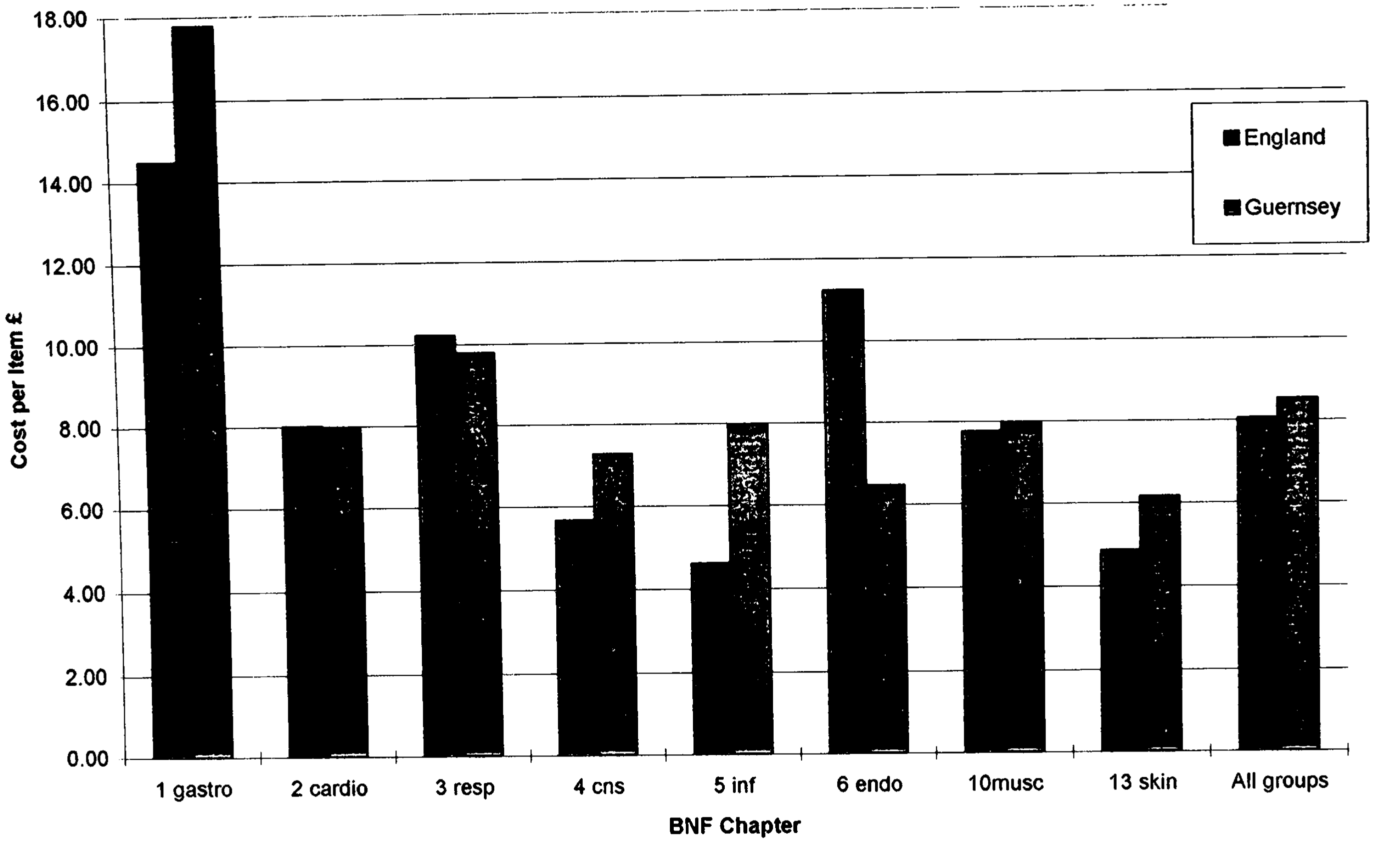


Figure 5 :
Cost per Item 1995-6 by BNF Chapter for England and Guernsey



5.11 In order to investigate the variations in the performance of the two groups of doctors between the eight therapeutic groups, we turn to the average cost of the items. Figure 5 (See page 18) shows the results of this analysis graphically. Table One presents all the analyses.

Prescribing by BNF Chapter 1995-6						
BNF	Cost per Star-pu		Items per Star-pu		NIC per Item	
Chapter	England	Guernsey	England	Guernsey	England	Guernsey
1 gastro	1.45	2.28	0.10	0.13	14.49	17.78
2 cardio	1.48	2.30	0.18	0.29	8.00	7.96
3 resp	2.06	2.53	0.20	0.26	10.21	9.78
4 cns	1.66	2.59	0.29	0.36	5.66	7.27
5 inf	1.57	3.70	0.34	0.47	4.59	7.95
6 endo	2.09	2.83	0.19	0.44	11.22	6.46
10 musc	1.16	1.83	0.15	0.23	7.76	7.96
13 skin	1.54	2.01	0.32	0.33	4.85	6.16

Table One - Prescribing by BNF Chapter for England and Guernsey

5.12 Examination of the figures suggest that the higher costs in the infection, gastro-intestinal and central nervous system groups are due to both higher prescribing frequency rates and higher costs per item; the higher costs in the cardiovascular, respiratory, endocrine, and musculoskeletal groups are due mainly to higher prescribing frequency rates alone, while the higher costs in the skin group are mainly due to higher costs per item. We note however, that unlike in the UK, the gynaecologists and urologists prescribe high cost endocrine agents for the treatment of infertility and prostatic cancer on standard prescription forms and are included in the above figures. It should again be emphasised that although a higher prescribing frequency rate may be expected because of the one month limit in Guernsey, this should be reciprocated by a decrease in cost/item. The only conclusion to draw is that the higher overall costs outlined due to higher costs in all the major therapeutic groups are the result of a combination of higher prescribing frequency and more expensive items. The next part of this section focuses further on specific therapeutic areas in order to examine the reasons for differences in performance between England and Guernsey.

Prescribing Performance

5.13 In England, prescribing performance is measured using a variety of indicators based on PPA data on the cost and volume of particular drug groups. In this section we compare the performance of Guernsey with English Health Authorities using six of these indicators.

5.14 The six indicators comprise five groups of drugs that accounted for 11.3% of the total prescribing costs in Guernsey and Alderney. The figures in brackets give the figures for the individual groups.

*	Drugs of limited clinical value.	(2.0%)
*	Modified release products.	(2.5%)
*	Combination products.	(1.4%)
*	Preventative drugs,	
	(i) Defined Daily Doses of inhaled corticosteroids per STAR-PU.	}
	(ii) Cost per Defined Daily Doses of inhaled corticosteroids.	} 5.1%
*	Defined Daily Doses of benzodiazepines per STAR-PU.	(0.3%)

Drugs of Limited Clinical Value

5.15 These drugs were identified by the Audit Commission in the UK from recommendations made in the British National Formulary (BNF). These preparations may occasionally be beneficial for certain individual patients, but are generally regarded as relatively ineffective. The level of prescribing of these types of drugs should generally be low. As can be seen in Appendix One (pages 5-8), the expenditure on these groups of drugs in Guernsey is high compared to the England average. We have calculated that £61,831 could have been saved in 1995/96 had Guernsey prescribed at the same level as the England average for these drugs.

Expenditure on Premium Price Preparations

Modified release preparations

5.16 Modified release preparations release drugs over a longer time period than ordinary tablets. They therefore need to be taken less frequently, e.g. once daily rather then three times a day. They are thought to improve patient compliance, a factor the pharmaceutical industry rely heavily on in marketing, however, as yet there is little evidence to support this. The cost of these preparations is considerably higher than the ordinary tablets, and therefore cost effective prescribing would mean that the use of these agents is low. From Appendix One (pages 9-14), we can see that the prescribing of these agents in Guernsey is moderately high compared with English prescribing and we have calculated that £32,120 could have been saved had prescribing been at the same level as the England average for 1995/95.

Combination products

5.17 Combination products contain two or more drugs. The cost of a combination product is usually considerably higher than the individual components. These preparations may offer a slight increase in convenience but there is no therapeutic advantage. Cost effective prescribing would mean that the use of these agents is relatively low. It can be seen, Appendix One (pages 15-19), that the expenditure in Guernsey on these agents is high when compared to England prescribing and we have calculated that £44,968 could have been saved had the Guernsey prescribing been at the same level as England for 1995/96.

Preventative Drug Prescribing

5.18 Evidence based medicine suggests that many prescribing interventions can be made to reduce the incidence of a disease or limit the rate of disease progression. The appropriate use of preventative drugs is therefore to be encouraged. One example of this is the use of inhaled corticosteroids to prevent asthma development. Although this intervention will increase the drugs bill, it is likely to be cost effective in the long run as there should ultimately be a reduction in morbidity and mortality.

5.19 The use of inhaled corticosteroids as measured by DDDs per STAR-PU is very similar to the England average as shown in Appendix One (pages 20-24), however the most cost effective agents are not being used as shown in Appendix One (pages 25-28), where cost/DDD is shown to be relatively high for Guernsey when compared to English Health Authorities. Branded breath actuated inhalers are being used rather then generic metered dose inhalers. If Guernsey and Alderney practices had prescribed the same quantity of inhaled corticosteroids but at the reduced cost per DDD of the England average, we have calculated that a saving of £59,235 could have been made over the period of one year.

Benzodiazepine Prescribing

5.20 Patients prescribed benzodiazepines can become dependent and tolerant to their effects. Therefore, they should not be prescribed indiscriminately, and should be reserved for short courses to alleviate acute conditions after causal factors have been established. As a consequence, prescribing of these drugs should be relatively low.

5.21 The Committee on Safety of Medicines (CSM) has issued the following advice on the prescribing of benzodiazepines:

- Benzodiazepines are indicated for short term relief (2-4 weeks only) of anxiety that is severe, disabling, or subjecting the individual to unacceptable distress occurring alone, or in association with insomnia or short term psychosomatic, organic or psychotic illness.
- The use of benzodiazepines to treat short term 'mild anxiety' is inappropriate and unsuitable.
- Benzodiazepines should be used to treat insomnia only when it is severe, disabling or subjecting the individual to extreme distress.

5.22 As can be seen in Appendix One (pages 29-32), the prescribing of benzodiazepines as measured by DDDs per STAR-PU is higher in Guernsey than the England average. We have calculated that £4,063 could have been saved had the prescribing in Guernsey been at the same level as England.

6.0 PRESCRIBING COSTS AND PERFORMANCE COMPARISONS FOR PRACTICES IN GUERNSEY AND ALDERNEY

6.1 This section looks at the trends in prescribing costs and items for each practice in Guernsey and Alderney, and also compares practices on various performance indicators. There are no 'gold standards' for these indicators, and therefore the variation between practices is of main interest. There are possible reasons for these variations, such as differences in the morbidity, demography, and deprivation between practices. Data sets for these variables are not available and therefore it would only be with detailed work at the individual practice level that any suggestions for the reasons in variation can be verified.

6.2 In England, patients register with an individual practice. It is therefore possible to compile rates such as cost per population, and cost per ASTRO-PU, used in the previous chapter for each practice in England. These list size data are not readily available for practices in Guernsey or Alderney. However, as consultation data are collected, we have therefore been able to compile rates for practices, such as cost per consultation.

6.3 Another variable that affects prescribing performance is obviously the individual doctor's habits, preferences, and idiosyncrasies when prescribing and in addition, any practice-based policies that are imposed or suggested. If prescribing behaviour is to be changed in a desired direction, then it is to this variable that we should focus. We are therefore in the arena of behavioural change and the recommendations outlined towards the end of this document will reflect this, rather than comment in detail on specific therapeutic changes in prescribing.

6.4 Guernsey has thirty six prescribing 'entities' detailed in the Prescription Pricing Authority data. Prescribing of all these entities are included in the prescribing totals used in Section 5, but in this section we concentrate on the seven 'major' practices.

6.5 Guernsey and Alderney have seven 'practices'; two of which are specialist types, the Eye Clinic and the Medical Specialist Group. The specialist practices are shown in the initial analyses relating to the cost and frequency of prescribing, but not where comparisons are made for performance indicators. Again, only detailed work for these individual practices could assess their performance. The remaining five practices are Queens Road, the Healthcare Group, L'Aumone and St Sampsons from Guernsey, and the Island Medical Centre, and the Eagle Practice from Alderney.

Cost and Frequency of Prescribing

6.6 Table Two shows the number of items prescribed, and costs of those items for each practice in the years October 1994 - September 1995 (Year 1) and October 1995 - September 1996 (Year 2). Total figures for Guernsey are also shown alongside England for purposes of comparison.

Overall Prescribing by Practice						
	Costs			Items		
Prescriber	Yr 1	Yr 2	% Increase	Yr 1	Yr 2	% Increase
Queens Road	£1,793,991	£1,911,918	6.57	228,440	229,314	0.38
L'Aumone	£1,839,917	£1,976,407	7.42	234,641	241,484	2.92
Healthcare	£2,115,825	£2,303,725	8.88	260,930	265,090	1.59
Eagle Medic Practice	£56,394	£52,067	-7.67	8,338	8,116	-2.66
Island Medic Centre	£118,071	£153,826	30.28	17,419	19,222	10.35
Eye Clinic	£45,146	£48,282	6.95	5,025	5,009	-0.32
Specialists	£202,791	£204,793	0.99	14,507	14,222	-1.96
Guernsey	**£6,278,459**	**£6,771,881**	**7.86**	**785,208**	**798,273**	**1.66**
England	**3,584m**	**3,876m**	**8.17**	**462m**	**475m**	**2.75**

Table Two - Items and Costs for Selected Practices for Years 1 and 2

6.7 The figures show a wide variation between the Alderney practices, ranging from a 30% increase on costs for the Island Medical Centre compared with a 7% decrease for the Eagle Medical Practice. The three practices in Guernsey show similar cost increases.

6.8 In terms of items, again the two Alderney practices provide the extremes of the range. These figures suggest that the main cause of the increases in cost are due to more expensive items rather than large increases in the frequency of prescribing. The Island Medical Centre shows the largest increase in frequency at 10%, but this only accounts for around a third of the increase in cost.

6.9 In order to compare practices' performance on the overall costs and frequency of prescribing, we have to allow for the fact that the consultation rates may be different between the practices. Figures 6 and 7 show the performance of practices for each quarter over the two year period on cost per consultation and items per consultation respectively. Table Three shows the year on year analysis.

	Costs per Consultation			Items per Consultation		
Prescriber	Yr 1	Yr 2	% Increase	Yr 1	Yr 2	% Increase
Queens Road	£26	£28	6.52	3.30	3.31	0.34
L'Aumone	£27	£29	7.82	3.42	3.53	3.30
Healthcare	£30	£32	6.77	3.64	3.63	-0.38
Eagle	£17	£18	5.26	2.47	2.75	10.97
Island	£19	£24	25.59	2.79	2.97	6.38
Eye Clinic	£7	£8	11.67	0.83	0.86	4.09
Specialists	£7	£7	2.30	0.51	0.50	-0.69
Guernsey	**£25**	**£27**	**7.61**	**3.09**	**3.13**	**1.43**

Table Three - Costs and Items per Consultation for Years 1 and 2

Figure 6 :NIC per Consultation 1994-6 for Guernsey/Alderney practices

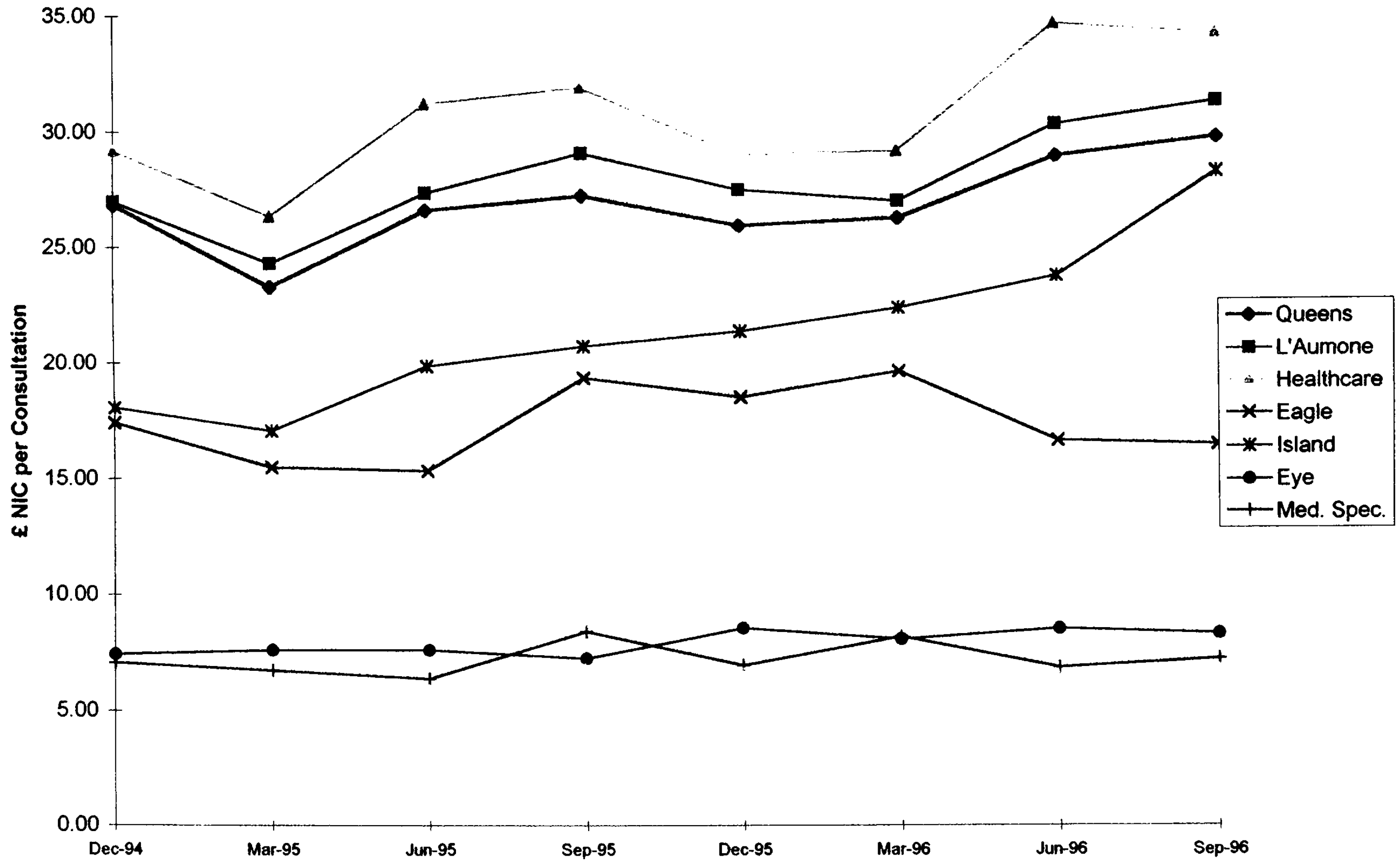
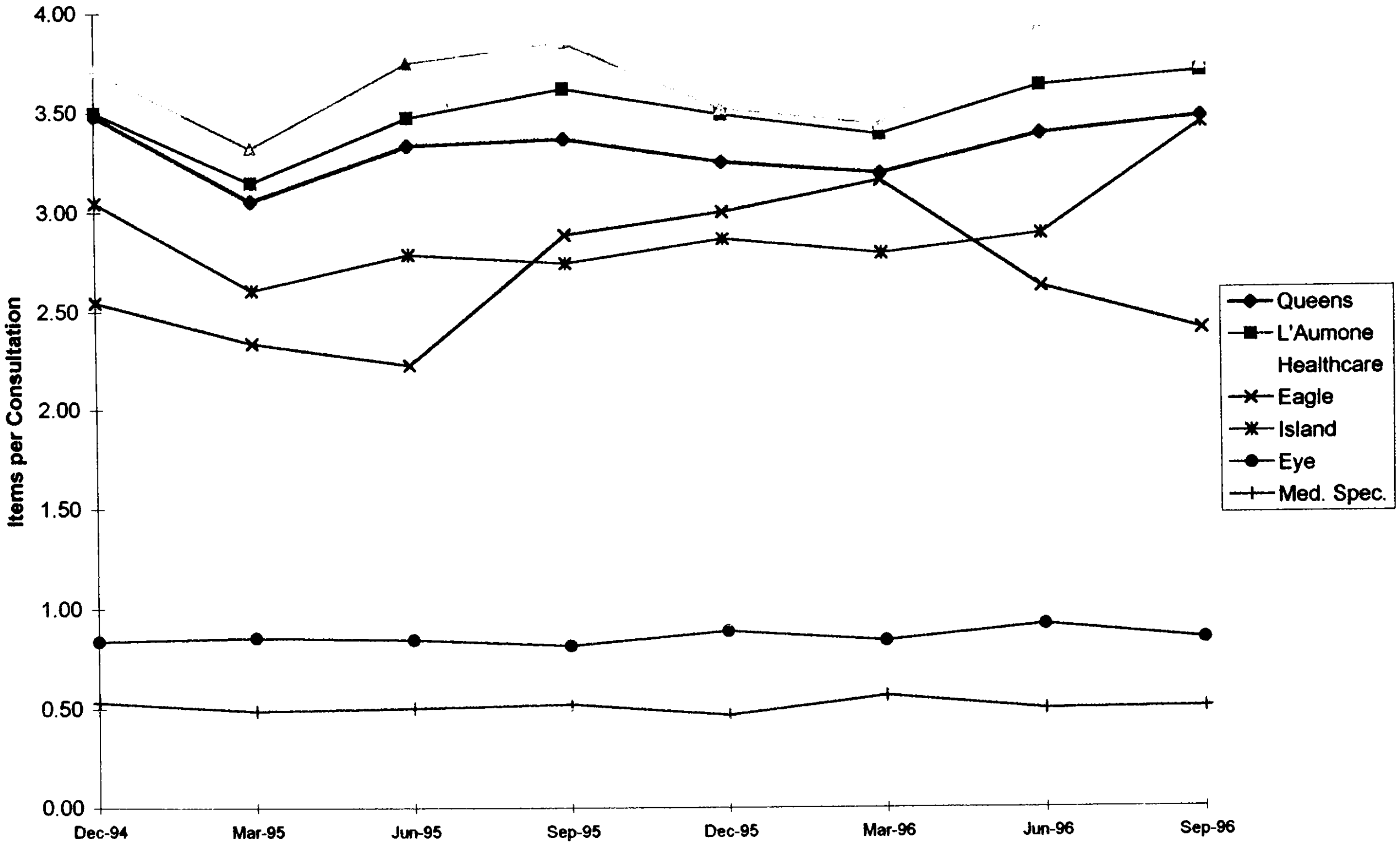


Figure 7 : Items per Consultation 1994-6 for Guernsey/Alderney practices



6.10 The two Alderney practices are shown to be the cheapest even though the Island practice has shown by far the largest increase in cost per consultation. The three Guernsey practices show similar patterns on the two variables.

6.11 Consultation data are not routinely collected in England, and therefore we cannot compare the Guernsey and Alderney practices with an England average. We do however have the consultation data for the practices in one Health Authority, Lincolnshire, for a similar time period. Lincolnshire is an average Health Authority in terms of cost per ASTRO-PU, and therefore offer a reasonable comparator for the Guernsey and Alderney practices. For the 62 practices in Lincolnshire, the average comparable cost per consultation was below £20.00. The three Guernsey practices are all much higher than this figure while in Alderney, one is lower and the other higher.

Prescribing Performance

This section should be read in conjunction with Appendix Two.

6.12 We have used six indicators to compare the five primary care practices in Guernsey. We have modified the variables used in the previous section to account for the fact that no population denominators are available at the practice level. The indicators are calculated on 1995/96 data and are:

- Costs of drugs of limited clinical value as a percentage of total spend;
- Expenditure on premium price preparations:
  (i) cost per consultation for modified release products
  (ii) cost per consultation for combination products;
- Preventative drug prescribing:
  (i) Defined Daily Doses of inhaled corticosteroids per consultation,
  (ii) cost per Defined Daily Dose of inhaled corticosteroids;
- Defined Daily Doses of benzodiazepines per consultation.

Drugs of Limited Clinical Value

Practice	Drugs of Limited Clinical Value as a percentage of Total Cost
L'Aumone	2.26
Queens Road	1.92
Healthcare	1.78
Eagle	1.36
Island	1.25

Table Four - Costs for Drugs of Limited Clinical Value as a Percentage of Total Spend

6.13 Table Four shows the performance of the five 'major' practices on this variable. For the reasons stated in Section 3, a low score would be preferred for this indicator. The figures show that the L'Aumone practice spends the highest percentage of their costs on the selected drugs, with the two Alderney practices being the lowest.

Expenditure on Premium Price Preparations

Cost per Consultation for Modified release preparations

Practice	Cost per Consultation for Modified release preparations
Eagle	1.31
Healthcare	0.88
Queens Road	0.73
Island	0.72
L'Aumone	0.52

Table Five - Cost per Consultation for Modified release preparations

6.14 Table Five shows the performance of the five practices for this indicator. For the reason stated in Section 5, a low score would be preferable for cost-effective prescribing. However, several doctors from Guernsey when interviewed suggested that these drugs were prescribed for the benefit of patients, and therefore a high score did not necessarily indicate poor or non cost effective prescribing. This could reflect pharmaceutical company claims for these products, claims that have little evidence to support them, other than anecdotal. These figures show more than a two-fold variation between practices. The L'Aumone and St Sampsons practice is the lowest, and the Eagle Medical Practice from Alderney the highest.

Cost per Consultation for Combination products

Practice	Cost per Consultation for Combination products
Eagle	0.47
L'Aumone	0.43
Healthcare	0.42
Island	0.38
Queens Road	0.36

Table Six - Cost per Consultation for Combination products

6.15 Table Six shows the performance of the five practices on this variable. The variation between practice is less for this variable than the previous two. The Eagle Medical Practice is again the highest. As with the previous variable, doctors suggested that a high score did not necessarily infer poor prescribing, and that the

prescribing of combination products was again for the benefit of patients in terms of increased compliance.

Preventative Drug Prescribing

6.16 Evidence based medicine suggests that many prescribing interventions can be made to reduce the incidence of a disease or limit the rate of disease progression. The appropriate use of preventative drugs is to be encouraged. Although these interventions increase the drugs bill, they are likely to be cost effective (in the long term) as there will ultimately be a reduction in morbidity and mortality. Examples include:

- drugs for reduction of hypertension,
- aspirin and/or anticoagulation following myocardial infarction or angina,
- hormone replacement therapy in post menopausal women to prevent osteoporosis,
- inhaled steroids to prevent asthma.

DDDs per Consultation for Inhaled corticosteroids

6.17 As an example of preventative medicine, it is suggested that the prescribing of these drugs should be relatively high. However, without patient or diagnosis linked data, it is not possible, as with all these indicators, to determine whether the drugs are being prescribed appropriately. It is also possible that the differences in performance between practices are due to differences in incidence of the disease between the practice populations. Again, further data are required to assess these figures properly. The figures in Table seven show that the prescribing rates are similar for the three Guernsey practices, but somewhat lower for the two Alderney practices.

Practice	DDDs per Consultation for Inhaled corticosteroids
Queens Road	2.57
L'Aumone	2.55
Healthcare	2.32
Eagle	1.98
Island	1.25

Table Seven - DDDs per Consultation for Inhaled corticosteroids

Cost per DDD for Inhaled corticosteroids

6.18 This variable is essentially an indicator of the types of preparations being used by the practice. A high score suggests that high cost branded preparations are being used rather than the more cost effective generic alternatives. Table Eight shows the performance of each practice on this variable. Again, the Alderney practices show the extremes of the range, while the Guernsey practices show similar figures.

Practice	Cost per DDD for Inhaled corticosteroids
Island	0.85
L'Aumone	0.65
Queens Road	0.62
Healthcare	0.54
Eagle	0.41

Table Eight - Cost per DDD for Inhaled corticosteroids

Benzodiazepine Prescribing

<u>DDDs per Consultation of Benzodiazepines</u>

Practice	DDD per Consultation for Benzodiazepines
Eagle	4.84
Healthcare	2.59
Island	2.58
Queens Road	2.23
L'Aumone	1.95

Table Nine - DDDs per Consultation of Benzodiazepines

6.19 For the reasons given in Section 5, a low score for this variable would be preferred. Table Nine shows the performance of each practice. The score for the Eagle Medical Practice is very high when compared with the others. The reasons for this are very difficult to evaluate given the lack of demographic and morbidity data for the practice populations. However, we know from the 1995 Census that Alderney has a very elderly population compared with Guernsey, and this may be one factor influencing these figures. Again, the Guernsey practices show little variation in performance.

7.0 GENERIC PRESCRIBING

7.1 It became obvious early in the review that this was an area where, potentially, large savings could be generated without any detriment to patient care, and with the support of the professional groups involved.

Appendix Three includes a MeReC Bulletin on generic prescribing, describing the latest guidelines in this area, which is made available to all English doctors.

7.2 The graphs on the next three pages (Figures 8, 9, 10) show the generic prescribing rate for Guernsey compared with all the English Health Authorities for 1994/95 and 1995/96. For both these years, Guernsey had the lowest generic rate. In 1995/96, the figure for Guernsey was 38% compared with an England average of 56%, while the highest generic rate for a Health Authority was 66%.

7.3 In order to focus on the areas where savings could be generated, we calculated the potential generic savings for every preparation prescribed in Guernsey for the year 1995/96 and then sorted them in terms of the savings potential. ***The top fifty preparations would generate a potential £193,000 for Guernsey in one year.*** *(See Table 12).*

Practice	Percentage Generic
Queens Road	39
L'Aumone	26
Healthcare	38
Eagle	29
Island	33
Eye Clinic	14
M Spec	40

Table Ten - Generic Prescribing Rates by Practice 1995/96

7.4 Table Ten gives the generic prescribing rate for the individual practices for 1995/96. We also calculated the potential generic savings for each practice in Guernsey. We found that the top twenty preparations in order of potential savings would generate the following for the three practices in Guernsey over one year. A list of the top twenty preparations for the three Guernsey practices is shown on pages 6-9 of Appendix Three.

Practice	Potential Savings (£)
Healthcare	70,911
L'Aumone	54,296
Queens Road	23,523

Table Eleven - Potential Generic Savings by Practice for Guernsey 1995/96

7.5 The Island and Eagle practices do not prescribe enough to generate large absolute savings but specific potential savings are shown in Appendix Three.

7.6 These savings can be generated in two ways:

* by modifying doctor behaviour using continuous reinforcement of the 'generic message', agreed practice policies, and regular feedback and monitoring of prescribing behaviour

* generic substitution, whereby a pharmacist is able to substitute generic alternative for selected branded preparations.

Figure 8
Prescribing Measures Review 1994-5
Total Generic Prescribing Level

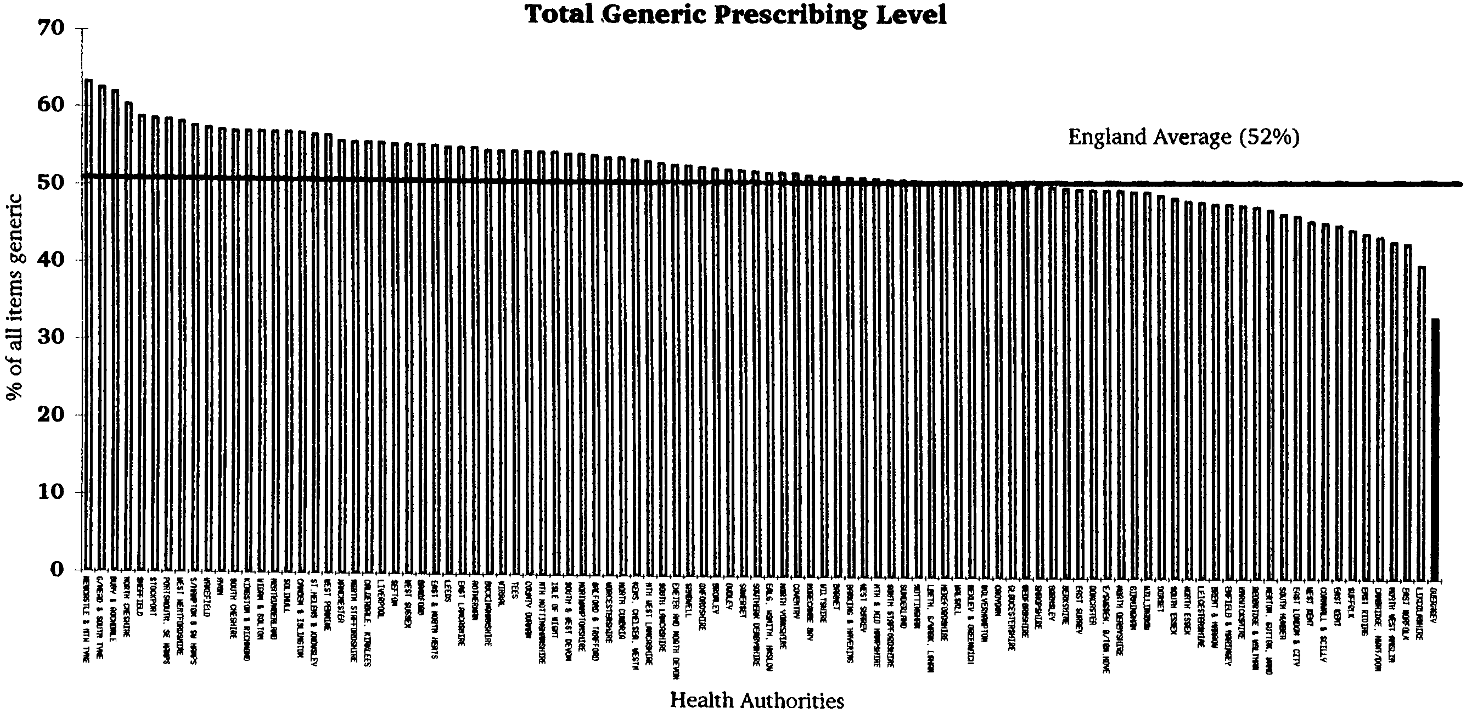


Figure 9
Prescribing Measures Review 1995-6
Total Generic Prescribing Level

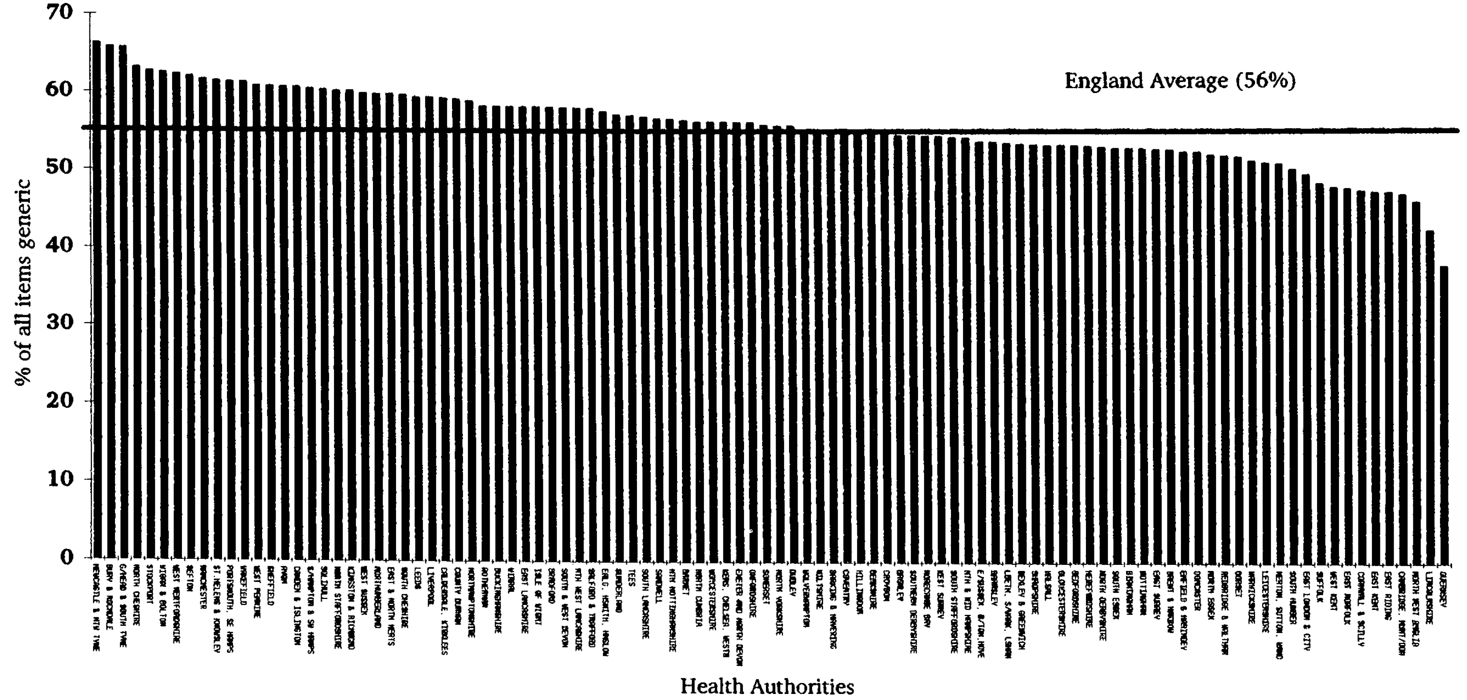


Figure 10
Prescribing Measures Review 1994-6
Total Generic Prescribing Level

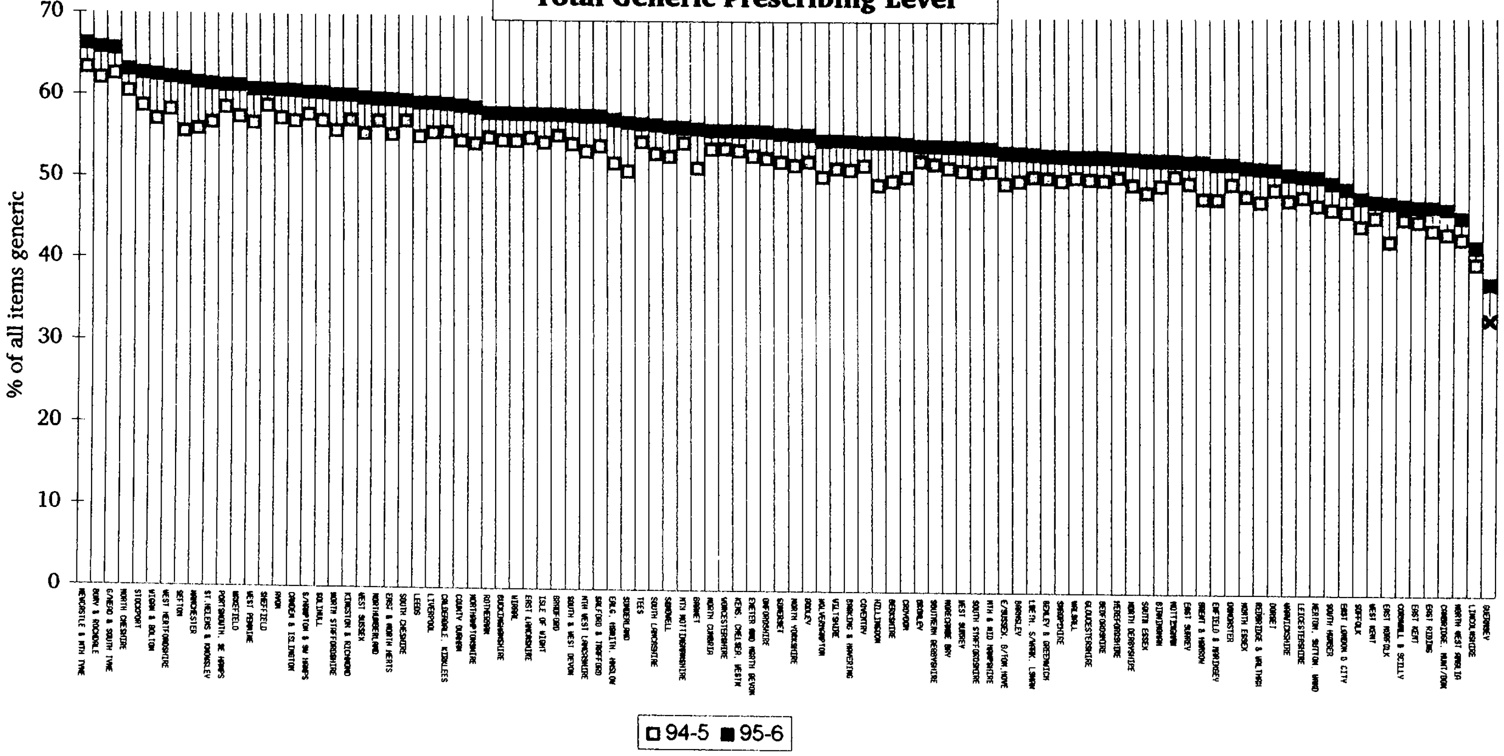


Table 12:
Guernsey / Alderney
Potential Generic Savings 1995-6

Guernsey and Alderney

Proprietary Drug	Cost(£)	Items	Generic Equivalent	Potential saving (£)
Tenormin L.S._Tab 50mg	£24,561	4,091	Atenolol_Tab 50mg	£19,775
Tagamet_Tab 400mg	£21,153	1,232	Cimetidine_Tab 400mg	£14,651
Imuran_Tab 50mg	£20,551	473	Azathioprine_Tab 50mg	£14,002
Becloforte_Inha 250mcg (200 Dose)	£60,337	2,307	Beclometh Diprop_Inha 250mcg (200 Dose)	£13,269
Ventolin_Inha 100mcg (200 Dose)	£42,428	13,468	Salbutamol_Inha 100mcg (200 Dose)	£11,136
Voltarol_Tab E/C 50mg	£15,841	1,390	Diclofenac Sod_Tab E/C 50mg	£10,652
Tenormin_Tab 100mg	£12,782	1,713	Atenolol_Tab 100mg	£10,185
Becotide 100_Inha 100mcg (200 Dose)	£38,989	3,419	Beclometh Diprop_Inha 100mcg (200 Dose)	£7,858
Frumil_Tab	£37,952	7,422	Co-Amilofruse_Tab 5mg/40mg	£6,750
Nolvadex D_Tab 20mg	£10,565	1,142	Tamoxifen Cit_Tab 20mg	£6,628
Tenormin 25_Tab 25mg	£11,912	2,374	Atenolol_Tab 25mg	£6,561
Tildiem_Tab 60mg	£12,606	1,127	Diltiazem HCl_Tab 60mg M/R	£6,007
Brufen 400_Tab 400mg	£5,746	1,668	Ibuprofen_Tab 400mg	£4,303
Aldactone_Tab 100mg	£4,304	247	Spironol_Tab 100mg	£3,336
Vibramycin_Cap 100mg	£6,439	1,205	Doxycycline_Cap 100mg	£3,049
Intal_Inha 5mg (112 Dose)	£14,990	633	Sod Cromoglycate_Inha 5mg (112 Dose)	£2,972
Colofac_Tab 135mg	£13,511	2,111	Mebeverine HCl_Tab 135mg	£2,901
Moduretic_Tab	£5,030	1,907	Co-Amilozide_Tab 5mg/50mg	£2,714
Brufen 600_Tab 600mg	£3,298	656	Ibuprofen_Tab 600mg	£2,337
Daonil_Tab 5mg	£2,675	397	Glibenclamide_Tab 5mg	£2,195
Ponstan Fte_Tab 500mg	£4,849	611	Mefenamic Acid_Tab 500mg	£2,184
Triludan_Tab 60mg	£5,958	1,532	Terfenadine_Tab 60mg	£1,943
Monit LS_Tab 10mg	£4,891	1,142	Isosorbide Mononit_Tab 10mg	£1,802
Opticrom_Eye Dps 2% (Aq)	£8,661	1,117	Sod Cromoglycate_Eye Dps Aq 2%	£1,778
Prothiaden_Cap 25mg	£7,752	2,390	Dothiepin HCl_Cap 25mg	£1,737
Tenoretic_Tab	£18,561	2,114	Co-Tenidone_Tab 100mg/25mg	£1,696
Lederfen 450_Tab 450mg	£10,239	526	Fenbufen_Tab 450mg	£1,691
Adalat Ret 10_Tab 10mg	£19,974	2,213	Nifedipine_Tab 10mg	£1,610
Prothiaden_Tab 75mg	£7,688	1,568	Dothiepin HCl_Tab 75mg	£1,604
Becotide 50_Inha 50mcg (200 Dose)	£7,944	1,369	Beclometh Diprop_Inha 50mcg (200 Dose)	£1,595

Table 12 continued:
Guernsey / Alderney
Potential Generic Savings 1995-6

Guernsey and Alderney

Proprietary Drug	Cost(£)	Items	Generic Equivalent	Potential saving (£)
Tagamet_Tiltab Tab 800mg	£2,352	101	Cimetidine_Tab 800mg	£1,589
Ponstan_Cap 250mg	£2,478	540	Mefenamic Acid_Cap 250mg	£1,444
Monit_Tab 20mg	£3,239	560	Isosorbide Mononit_Tab 20mg	£1,433
Erythroped_Gran For Susp 250mg/5ml	£2,719	498	Erythromycin_Ethylsuc Susp 250mg/5ml	£1,423
Erythroped S/F_Gran For Susp 250mg/5ml	£2,579	449	Erythromycin_Ethylsuc Susp 250mg/5ml	£1,418
Imigran Subject_Inj 6mg/0.5ml Refill	£4,168	70	Sumatriptan_Inj 6mg/0.5ml Pf Cart Refill	£1,403
Flagyl-400_Tab 400mg	£1,718	412	Metronidazole_Tab 400mg	£1,378
Lioresal_Tab 10mg	£2,728	214	Baclofen_Tab 10mg	£1,332
Stemetil_Tab 5mg	£4,398	2,369	Prochlpzine Mal_Tab 5mg	£1,332
Amoxil_Cap 250mg	£1,548	366	Amoxycillin_Cap 250mg	£1,227
Adalat_Cap 10mg	£5,772	760	Nifedipine_Cap 10mg	£1,178
Lanoxin-Pg_Tab 0.0625mg	£1,613	2,297	Digoxin_Tab 62.5mcg	£1,136
Tenoret 50_Tab	£12,663	2,044	Co-Tenidone_Tab 50mg/12.5mg	£1,134
Feldene_Cap 10mg	£2,277	408	Piroxicam_Cap 10mg	£1,069
Cordarone X_Tab 200mg	£5,665	639	Amiodarone HCl_Tab 200mg	£1,063
Canesten_Vag Tab 200mg + Applic	£1,507	422	Clotrimazole_Vag Tab 200mg + Applic	£1,005
Minocin 50_Tab 50mg	£3,302	239	Minocycline HCl_Tab 50mg	£955
Aldactone_Tab 25mg	£1,308	259	Spironol_Tab 25mg	£952
Nitrolingual_Aero Spy 400mcg (200 Dose)	£5,691	1,259	Glyceryl Trinit_Spy 400mcg (200 Dose)	£951
Cordilox 120_Tab 120mg	£1,202	89	Verapamil HCl_Tab 120mg	£942
Totals	**531,117**	**77,559**		**£193,283**

8.0 Conclusion

8.1 This review of the pharmaceutical services in Guernsey and Alderney focused on analysing the current prescribing patterns, identifying the nature and extent of potential cost savings, developing a broader approach to medicine management and exploring the nature of the relationships within the health system on the Islands. Factors which would assist in shaping the future debate on prescribing, distribution and management of prescribed medicines have been emphasised. Medicine management has been defined as "facilitating maximal benefit and minimal risk from medicines for an individual patient". Medicines are becoming increasingly complex, yet evidence of poor compliance, wastage and inappropriate medication regimens suggest that pharmacists and prescribers need to work more effectively together to ensure that the patients get the best from their medicines.

8.2 This report has indicated where specific cost savings could be achieved using only a selection of indicators in particular therapeutic areas when compared to English prescribing. **The potential savings amount to almost £400,000 in one year.** Although we recognise the differences between the two countries in terms of organisational structure, populations, priorities, and funding arrangements for the provision of prescribing services, for illustrative purposes, we have had to compare Guernsey with the England average. In the future, it may be advisable for the professions involved, i.e. doctors and pharmacists, to produce a set of indicators specifically for the analysis of Guernsey prescribing. However, we have shown that:

- the cost and frequency of prescribing has increased at a similar rate for both England and Guernsey over the two years October 1994 to September 1996;
- the cost per head of population for 1995/96 was £76 in England, £79 in Jersey, and £111 in Guernsey. If the prescribing costs on Guernsey and Alderney had been at the same rate as either of the comparators, the drugs bill would have been reduced from £6.8 million to £4.6 million, a saving of £2.2 million.
- analyses suggest these differences are not due to differences in the age-sex structure of the populations of England and Guernsey, nor due to overall morbidity differences. This suggests the main differences are due to doctor preference and their response to patient demand. It has been suggested that the higher rate of prescribing and the high prescribing of premium price preparations is influenced to some degree by patient demand, and the fact that patients have to pay for the consultation and expect something in return.
- the higher costs are apparent in all the major therapeutic groups, and are most likely due to a higher frequency of prescribing and the prescribing of more expensive items.
- differences in performance on six prescribing indicators (comprising five specific drug groups that account for 11% of the total prescribing costs) suggest that savings of around £202,000 could be made over the period of one

year if the prescribing in Guernsey was at the same rate as the England average.

- prescribing generic alternatives for fifty branded preparations could save almost £200,000.

8.3 It is vital to show where variations are not due to the different needs of the practice population, but to doctor preference or inappropriate prescribing. If this is not achieved, then it will not be possible to target areas where change can be achieved in order to generate savings and increase cost effective and rational prescribing. More detailed analysis of the existing PPA data is required, together with the collection of new data sets for the populations of the different practices. At the very least, the list sizes of the practices should be defined so that appropriate age-sex weightings can be produced. The prescribing performance of each practice can then be compared more accurately not only with Guernsey and Alderney, but with all practices in England, using the PACT data sets provided by the PPA.

8.4 Questions have been raised and concerns expressed about the separation of primary and secondary care arrangements between the GSSA and the Board of Health and in particular the differing governance mechanisms for the co-ordination and supervision of these services. While we found reasonable degrees of confidence about the overall quality of health care services, there were clearly strong views that this arrangement resulted in unsatisfactory arrangements for discharge planning and discharge medication, lack of appropriate audit and monitoring functions, duplication of administration and an absence of integrated planning for primary and secondary care. We recognise that these arrangements are influenced by political considerations and the challenge therefore, is to look for different ways in which the Board of Health and GSSA can work collaboratively to create the conditions for seamless, genuinely integrated care and develop a longer term vision and strategy. The objective would be to ensure that administrative barriers do not inhibit or prevent the achievement of optimal standards of care and outcomes for the population of Guernsey and Alderney.

8.5 Promotion of generic prescribing has the potential to generate immediate savings. Generic prescribing requires changes in prescribing behaviour on the part of doctors as well as patient education. Although many of the doctors we met supported generic prescribing conceptually, their practice indicated a fairly low rate of generic prescribing. If the "generic message" is not taken on board by the prescribers, then generic substitution may be an alternative option.

8.6 Optimal medicine management has implications for community pharmacists; with increasing complexity of medicines, there will be a growing need for pharmaceutical advice in the monitoring and management of individual patients as well as in the development of protocols and guidelines. Pharmacists should be encouraged and supported in extending their role in the management of medicines as well as in monitoring prescribing performance. The community pharmacists in Guernsey are keen to provide support for monitoring prescribing performance and audit. They saw their future role evolving in the direction of provision of specialist services such as monitoring of anticoagulant therapy, asthma, diabetes and hypertension.

8.7 There is considerable diversity in the organisation of existing community pharmacy and dispensing services, ranging from independent community pharmacists to pharmacists operating independently from Practice premises and pharmacists directly employed by the GPs. We understand that there is some "doctor dispensing" but that it is being gradually phased out. It was suggested to us by some that this organisational diversity is a strength enabling innovation and constructive entrepreneurialism. However, many pharmacists also indicated that it constituted a weakness resulting in variable standards of service to the community, thus making it difficult to measure performance of the whole system. Furthermore it has created intra-professional tensions resulting in lack of trust and collaborative working among the pharmacists. A detailed review of the existing different organisational models for the provision of community pharmacy services may assist the Pharmacist community as well as GSSA. The purpose of such a review would be to:

- to examine the differences in the quality and range of services provided to patients under the different dispensing arrangements;
- to identify differences in total dispensing costs under the different dispensing arrangements i.e. between independent community pharmacies and Practice based pharmacies;
- to explore the optimal organisational model for the provision of community pharmacy services that would be acceptable to the pharmacists and the public.

8.7 It is vital for audit purposes that appropriate and timely information is made available to all professionals involved in the prescribing process. It is therefore recommended that information technology solutions are sought in order to link the various constituents and provide them with relevant information once the requirements for the data sets are finalised. It is possible to link prescribers, pharmacists, GSSA and PPA in a single network which would enable the PPA to provide prescribing information to the GP practices electronically. A single network would enable the health care professionals to share a single medical/pharmaceutical record and lead to improved communications between them.

8.8 The creation of a prescribing monitoring unit is recommended to ensure continual monitoring of prescribing and to form a bridge between the key players in the system. We suggest the establishment of a "<u>Prescribing Performance Unit</u>". The size and staffing of such a unit would obviously be dependent on available resources, in the knowledge that potential savings are available within the existing drugs bill to recoup a small salary bill several times over. However we would encourage the appointment on a sessional basis, of a local pharmacist and doctor to act as medical and pharmaceutical advisers to the unit. The unit would require, in addition, administrative and IT support. It may be necessary, initially to obtain additional external support and advice to get the unit functioning; the Prescribing Support Unit is best placed to offer such support and training.

8.9 The unit would address specific prescribing policy issues, for example:

- the introduction of a formulary;
- the encouragement and support of consortium purchasing of formulary drugs for the whole Island;
- the promotion of generic prescribing;
- priority setting to address specific therapeutic areas;
- the production of locally agreed prescribing indicators, in order to monitor the performance of prescribers.
- the provision of up-to-date prescribing advice to all prescribers through the production of a local bulletin, or by distributing already available literature, e.g. Drugs and Therapeutics bulletin, or MeReC bulletin.
- monitoring the introduction of new drugs and their effect on the drugs bill, while providing prescribers with information on which patients will benefit from their use.

9.0 Recommendations

9.1 Our main recommendations focus on developing a process and providing a structure that would enable all interested parties to produce a locally agreed agenda for prescribing into the next millennium.

9.2 We propose that a prescribing performance unit be constituted at the earliest opportunity. Such a unit should be the responsibility of a steering group comprising representatives from both the Board of Health and the GSSA. This unit would:

- comprise of, or have access to, pharmaceutical, medical, nursing and information technological expertise.
- have access to all Guernsey and Alderney PPA data in an electronic format updated quarterly.
- provide the link and focal point for **all** prescribers and dispensers in Guernsey and Alderney at both the primary and secondary care level.

The functions and responsibilities of such a unit have been described in section 8; however in order to generate savings in 1997/8, the unit should focus initially on:

⇒ the promotion of generic prescribing for the top fifty identified preparations,
⇒ assistance with achieving the savings identified in the report,
⇒ the development and introduction of a formulary,
⇒ explore consortium purchasing of formulary drugs for the island,
⇒ the production of locally agreed prescribing indicators,
⇒ the provision of advice and support for audit of prescribing performance.

9.3 The GSSA with the Board of Health should undertake health needs assessment of the practice populations in order to more accurately define the reasons for the differences in prescribing between the practices, and to highlight areas where these differences are due to doctor preference rather than patient need;

9.4 Notional drug budgets for individual practices should be introduced, based in part on the needs of the respective populations and part historic prescribing patterns, in order to monitor prescribing performance. The establishment of such budgets will initially require assistance from agencies such as the Prescribing Support Unit until local expertise is developed.

9.5 An incentive scheme should be developed whereby performance against the notional budget and specified indicators, such as generic prescribing rates, may result in part of the savings being made available to the prescribing and dispensing community for activities and services that will further benefit patient care.

9.6 The GSSA and the Board of Health should continue to find ways of working collaboratively in this venture to create conditions for integrated care and the development of a shared vision and strategy to maximise the health of the people of Guernsey and Alderney.