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# **The NHS Cancer Plan and The Pharmacy Contribution To Cancer Care**

**January 2001**

**Purpose of this document**

The purpose of this document is to highlight where there are currently deficiencies in the provision of oncology pharmacy services to hospital patients, and where improvement need to be made in order to support the national cancer program.

Produced by The British Oncology Pharmacy Association (BOPA)

For possible circulation to: Health Authorities  
Chief Executives NHS Trusts  
Cancer Network Directors  
Chief Pharmacists

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## Summary

The NHS Cancer Plan acknowledges that pharmacists and pharmacy technicians are essential for the preparation of chemotherapy treatments and the provision of advice on cancer medication. It does not, however, address the ability of hospital pharmacy to maintain or expand services to support implementation of the plan despite an increasing workload and complexity of therapies.

To date there has been little cohesive planning at Trust, Regional or network level as to the impact of increasing cancer workload on pharmacy services. Regional Pharmaceutical Advisors, Cancer Network directors and local service planners need to be fully appraised to ensure workforce planning and capital investment on equipment takes place.

In order to support the NHS cancer plan, action is needed on a number of fronts:

- **Organisation, management and quality of care and services**

To ensure oncology pharmacy services are managed and organised effectively to provide high quality cancer care, a lead oncology pharmacist should be identified at cancer centres and units and given adequate time and support to fulfil their responsibilities.

Standards should be set for appropriate grading, level of commitment and required expertise.

The establishment of Network lead oncology pharmacist posts should be resourced and developed to participate in the management of the network.

Standards need to be set for pharmacist assessment of chemotherapy prescriptions.

Standards need to be set for the quality of oncology clinical pharmacy service provision.

- **Workforce and capacity planning**

Investment in staff, equipment and facilities is required.

National guidelines on dose banding and dose approximation are required.

Standards need to be set for the minimum level of clinical pharmacy services to oncology wards in relation to time allocation, grade of staff and level of expertise.

Resources should be made available to support:

- The development of clinical pharmacy services to oncology day patients.
- The development of the extended role of oncology pharmacist such as prescribing under Patient Group Directions.

- **Recruitment, retention and career pathways**

An examination of staff grading should be undertaken as a matter of urgency with guidance issued on appropriate grading.

It is anticipated that a combination of a review of staff grading and enhanced payments might be effective in tempting some pharmacists and technicians from the much larger pool of community pharmacy into the hospital service.

- **Education, training and continuing professional development**

A review of the methods for training oncology pharmacy staff at local, network and national levels is required as well as an analysis of formal training courses.

Intensive specialist training courses should be established to help meet the demand for specialist staff.

A lead pharmacist to be appointed to co-ordinate oncology pharmacy education for England, Scotland and Wales.

- **Clinical research**

Research pharmacist posts are established to work within the National Cancer Research Network Co-ordinating Centre.

Pharmacists are involved in the early stage of trial design and become an integral member of trial steering committees.

Oncology pharmacists and technicians need to explore methods for helping to further cancer research.

Establishment of a Chair in Oncology Pharmacy Practice is recommended.

**A comprehensive national review of the current level of provision of pharmacy services to cancer patients is required.**

## **1. Introduction**

The NHS Cancer Plan<sup>1</sup> outlines how cancer services in the UK will be improved over the next few years and how staff and services will be expanded. The Plan is supported by new funding and acknowledges that extra cancer specialists, radiographers and nurses will need to be employed. There will need to be targeted action to respond to shortages of other staff who contribute to cancer diagnoses and treatments.

Pharmacists and pharmacy technicians are essential for the preparation of chemotherapy treatments and the provision of advice on cancer medication. They are an integral part of the multidisciplinary team contributing to the treatment of cancer patients. As chemotherapy treatments are used more widely and become more complex the roles of pharmacists who specialise in oncology pharmacy and the pharmacy technicians that support them become increasingly important.

This purpose of this document is to

- Highlight where there are currently deficiencies in the provision of oncology pharmacy services.
- Highlight the urgent need for more definitive comprehensive standards for the delivery of oncology pharmacy services.
- Set out a strategic plan of actions for pharmacy in support of the national cancer program.
- Highlight where improvements need to be made in order to support the national cancer program.

**It is written on behalf of BOPA and requests the support of the National Cancer Director, Professor M Richards.**

Action is needed on a number of fronts including:

- Organisation, management and quality of care and services
- Workforce and capacity planning
- Recruitment, retention and career pathways
- Education, training and continuing professional development
- Clinical research

## **2. Organisation, management and quality of care and services.**

Improving the Quality of Cancer Services<sup>2</sup> and the Manual of Cancer Services Standards<sup>3</sup> documents give guidance on what comprises a high quality service, as an aid to raising standards and ensuring uniformity in the services available to cancer patients.

In June 2000 BOPA submitted detailed comments on the draft manual to the National Director of Cancer Services. BOPA welcomed the manual and its national recognition

of the impact of oncology pharmacy services, but highlighted that achievement of the standards will require investment of capital and revenue and reorganisation. Although practices vary across the country, many networks see the pharmacy department's delivery of drugs for chemotherapy as a major constraint in the system<sup>4</sup>.

## **2.1 Organisation**

Publication of the Calman-Hine report<sup>5</sup>, and the growing demand for chemotherapy has resulted in growing demands on pharmacy services. There is also recognition of pharmacists and their contributions within the Manual of Cancer Services Standards. Every hospital providing drug treatment specific to malignant disease will be required to have pharmacists supervise chemotherapy prescribing and a designated pharmacist responsible for the pharmaceutical services to cancer patients<sup>3</sup>. There is currently no requirement for designated pharmacists to have a specific expertise, qualifications or experience - BOPA find this unacceptable and are working to define minimum standards (see sections 2.3 and 5).

Whilst the increasing demand for chemotherapy has led to an increase in the number of specialist posts for pharmacists and pharmacy technicians with an interest in oncology, posts and services have been developed in an ad hoc manner. These have been more dependent upon the attitude of managers within individual Trusts than upon the needs of an integrated cancer service.

This lack of integration which affects both chemotherapy preparative services and other aspects of pharmacy work such as drug policy preparation and staff training and development, is likely to continue unless there is pharmacy representation within the developing cancer network structure.

The Manual of Cancer Standards requires standardisation of chemotherapy related and supportive care policies across networks. This will require the support of all Trusts across the network and problems are likely to arise as different Trusts have independent purchasing arrangements and Drug and Therapeutics committees. There will be a need for a pharmacist to lead and negotiate rationalisation of drug policies across the network, and to promote harmonisation of standards of oncology pharmacy.

## **2.2 Management**

Within individual Cancer Centres and Units Senior Oncology Pharmacists frequently have an established and valued role within the Cancer Services management structure. This includes drug budget management; new drug evaluations and development of supportive care policies. The level of involvement is, however, inconsistent across Trusts and even between Trusts who share centre status. There is a need for a defined level of input at an appropriate grade and with the appropriate level of expertise.

In some Trusts the designated pharmacist may have a purely clinical role whilst in others the post may have additional responsibilities for example managing the Aseptic unit which apart from chemotherapy may prepared total parenteral nutrition (TPN) and a centralised intravenous additive service (CIVAs). It is important to remember that the majority of pharmacy services to oncology patients are provided by staff having responsibilities other those related to cancer services.

The structure and maturity of local Cancer Networks is at different levels across the NHS. In some networks there is already pharmacist representation on site specific and other groups. It is likely that oncology pharmacists will be asked to participate in the Network management process. Providing high quality, oncology pharmacy services to Cancer Networks will require a significant time commitment.

### ***Recommendation***

*To ensure oncology pharmacy services are managed and organised effectively to provide high quality cancer care:*

- *A lead oncology pharmacist should be identified at cancer centres and units and given adequate time and support to fulfil their responsibilities.*
- *Standards should be set for appropriate grading, level of commitment and required expertise.*
- *The establishment of Network lead oncology pharmacist posts should be resourced and developed to participate in the management of the network.*

## **2.3 Quality**

Following publication of the Calman-Hine Report<sup>5</sup> in 1995 a group of London Oncology Pharmacists published guidelines for pharmacists providing services at both cancer centres and cancer units<sup>6</sup>. These were recommended minimum standards expected of pharmacists providing services to cancer patients. The group who produced them had no authority to enforce these and individual hospital pharmacies or individuals were not audited against these standards.

The BOPA Standards Working Party is currently working to produce standards of practice for oncology pharmacy practice. It is hoped that in the future these standards will be accepted for use in all cancer centres and cancer units, and that these would also be included in future updates of the Manual of Cancer Services Standards. The need for minimum standards has been highlighted by two recent Serious Untoward Incidents involving cytotoxics where in one case doses were dispensed without an appropriate pharmacist assessment and in the other the ward had no clinical pharmacy service.

### ***Recommendations***

- *Standards need to be set for pharmacist assessment of chemotherapy prescriptions.*
- *Standards need to be set for the quality of oncology clinical pharmacy service provision eg prescription monitoring, patient monitoring parameters, discharge planning and patient counselling.*

### **3. Workforce and capacity planning**

Developments in the indications for cancer chemotherapy and in the range of drugs available; has led over recent years to increasing pressure on the mechanisms needed to prepare and support chemotherapy administration, and in the provision of clinical pharmacy services to cancer patients.

There have been an increasing number of posts advertised for specialist pharmacists and pharmacy technicians to work in oncology over the course of the last decade (see Appendix 3). Unfortunately, these come at a time when hospital pharmacy services, are facing severe problems with recruitment and retention of pharmacists and technicians. This is an NHS-wide issue but is particularly severe in London and the South. Oncology Pharmacy services are extremely labour intensive and hence particularly vulnerable at a time when demands upon them are increasing rapidly. In some areas staffing shortages are now critical and patient safety is at risk. The recruitment problems facing the hospital pharmacy service are detailed in Appendix 1 and the more serious situation in London in Appendix 2. It is notable that the two London trusts with the worst vacancy levels have between them reported three chemotherapy associated Serious Untoward Incidents in the last two years. Staffing problems will have an impact on both technical and clinical pharmacy services.

#### **3.1 Technical Services**

##### **3.1.1 Aseptic dispensing facilities and licensed units.**

Pharmacy aseptic work falls into three categories - Aseptic Dispensing (injections will be given within 24 hours of preparation), Aseptic Preparation (injections used within 7 days), and Aseptic Manufacture (bulk preparation of standard doses for stock and/or injections that will be used beyond 7 days from preparation). Mandatory standards for Aseptic Dispensing and Preparation have been agreed and apply to all hospital aseptic units in the UK<sup>7</sup>. Pharmacies carrying out aseptic dispensing and preparation are subject to annual self-audit and external peer review by Senior Quality Control Pharmacists. Aseptic manufacture requires a 'Manufacturer's Specials Licence' which is granted by the Department of Health and is subject to audit by the Medicines Control Agency (MCA).

Within the next two years the classification of work as 'Aseptic Preparation' is likely to disappear. This will mean that all pharmacies wishing to prepare injections of cytotoxic drugs, more than 24 hours in advance of use, will require to be licensed. Licensing may also become a requirement for the aseptic dispensing of clinical trial drugs. The net result of these changes will be to restrict Aseptic Manufacture and clinical trial work to major cancer centres, and to push many hospital pharmacies towards 24 hour / 7 day a week aseptic dispensing services.

The centralised hospital pharmacy aseptic unit (licensed in major cancer centres) with a satellite dispensing service for outpatient clinics, is still regarded by many as the current design model. Aseptic services, in hospitals that will be built in the next ten years, are likely to be based on this model. Future designs will probably see a trend

towards a less centralised approach with more emphasis on dedicated, large satellite aseptic units servicing inpatient and outpatient chemotherapy. Pharmacists and pharmacy technicians with specialist clinical and dispensing knowledge will manage such units located integrally with ward and clinic areas.

### **3.1.2 Workload**

Workload in pharmacy cytotoxic reconstitution units has risen considerably over the last few years (see Appendix 3). Paralleled to this has been a move to more patients being treated with chemotherapy on an outpatient or day case basis putting further pressures on already stretched nursing and pharmacy staff. Further increases can be expected as larger numbers of patients are treated with chemotherapy. Investment in staff, equipment and facilities is required.

Although the data presented does not include other pharmacy activities which can be directly related to the care of cancer patients, this cannot be ignored. Increasing numbers of patients also places increasing strain on dispensary based staff and services, as greater numbers of patients require drugs during admission and on discharge.

Concerns about the increasing complexity of dosing schedules for new drugs, adequate prescription screening, and the safe handling and correct preparation of all drugs administered by injection will lead to a reduction in the number of drugs added to infusion fluids by nursing staff and an increase in the workload of the satellite aseptic service. It can be envisaged that adjuvant oral chemotherapy and support drugs will be dispensed from such units rather than through the main pharmacy.

Capacity planning issues, raised by the MCA, with the intention to ensure proper microbiological control and maintain a high level of Good Manufacturing Practice (G.M.P)<sup>8</sup>, have exposed a shortfall in the number of hospital based aseptic dispensing units. Budget planning issues, raised by the MCA, challenge the NHS to provide adequate funding to build and maintain aseptic facilities. Since the cost of building aseptic units is high (approx. £1 million for a major teaching hospital including satellite dispensing services), and major refurbishment and re-equipping would be necessary within 10 years, some form of central NHS commitment to funding may be required.

Units licensed by the MCA are required to show that they have made a judgement of what constitutes safe maximum outputs, and to agree that the units will not be allowed to exceed these safe limits, no matter how high is clinical demand. The Trust Board's acceptance of this must be documented. If it is not, or if the agreed workload limits are exceeded the MCA can enforce immediate closure of the unit or restriction of activity. In 1998 the pharmacy at a major teaching hospital was stopped from aseptic compounding by MCA, excessive workload was a contributory factor. The MCA has also considered revoking the license in at least one other unit due to lack of appropriately trained pharmacists. Breaches of the terms of a license, is a breach of the Medicines Act, which is a criminal offence. If the breach were alleged to have caused harm to a patient it is very likely that the MCA would prosecute the Trust.

The uncontrolled and unplanned growth in chemotherapy dispensing activity of the last five years or so will not be allowed by MCA to continue if it cannot be proved that it can be handled safely.

Investment in new technologies for aseptic dispensing such as gas permeable isolators and automated reconstitution devices is required. A number of aseptic units have experienced problems with staff developing repetitive strain injuries.

National guidance on the use of labour saving approaches to chemotherapy, such as dose banding and dose approximation, would also be useful in reducing the demand on pharmacy staff and are essential to help reduce workload.

It should be noted that commercial compounding services who have in the past provided, at a cost, a safety valve for pharmacy compounding units unable to cope with their chemotherapy workload, are increasingly unable to fulfil this function. Many are working at the capacity limit of their facilities and so any significant increase in their workload requires long lead-in times whilst they bring extra capacity on stream. Such capacity faces staffing problems similar to those facing the NHS and increasingly complex chemotherapy regimens are not amenable to the batch production necessary if off-site compounding services are to be used.

#### ***Recommendations***

- *Investment in staff, equipment and facilities is required.*
- *National guidelines on dose banding and dose approximation are required.*

### **3.2 Clinical services**

In addition to chemotherapy prescription screening and preparation oncology pharmacists also provide a variety of clinical services to both in and outpatients.

As the volume and complexity of chemotherapy has grown so has the role of the specialist pharmacist. In many hospitals pharmacists have taken on tasks more often carried out by other professions particularly medical staff who have been forced to devolve work in order to comply with directives on doctors working hours.

Examples of the expanding role of the oncology pharmacist include:

- A pharmacist at the Royal Marsden Hospital who has, for the last three years been involved in prescribing for outpatients requiring symptom control as a result of protracted intravenous infusion of 5-fluorouracil.
- A pharmacist at Mount Vernon Hospital who is based within the oncology day care facility. The pharmacist act as a liaison with the cytotoxic reconstitution service, counsels patients on their drugs and provides timely discharge medication to patients receiving chemotherapy<sup>9</sup>.
- The pharmacists at Guy's and St Thomas' Hospitals who provide out of hours support for patients receiving chemotherapy at home via portable infusion pumps.

With recent legislation formalising the prescribing rights of non-medical professional working under Patient Group Directions, the role of the oncology pharmacist is likely to expand further.

Unfortunately, standards for clinical pharmacy services to cancer patients have not been set in the Manual of Cancer Standards. Anecdotally, there is great variation in both the numbers of pharmacists providing clinical services to cancer patients and their experience and grading. It seems certain that in some cases pharmacists are struggling with a workload, which is inappropriate by virtue either of its size or its complexity relative to their experience. This is likely to put patients at risk by removing a valuable safeguard on prescribing in this risky area.

The proactive nature of oncology pharmacists and the hazardous nature of oncology prescribing were underscored during a recent audit of pharmacist interventions in the London area<sup>10</sup>. During the audit period pharmacy staff in two cancer centres made 89 and 111 interventions per 100 inpatient beds, respectively, compared with 61 per 100 beds for the overall sample of acute Trusts surveyed. Additionally 19% and 25% of interventions in the oncology centres were considered to be of major (life saving or preventing serious morbidity) significance compared with 12% overall. However, the time taken by pharmacists screening prescriptions in the cancer hospitals was 27-45% longer than those in the average acute unit. This reflects the high level of complexity of oncology prescriptions – something not always fully appreciated by those allocating pharmacy staff.

***Recommendations:***

- *Standards need to be set for the minimum level of clinical pharmacy services to oncology wards in relation to time allocation, grade of staff and level of expertise.*
- *Resources should be made available to support:*
  - *The development of clinical pharmacy services to oncology day patients.*
  - *The development of the extended role of oncology pharmacist such as prescribing Patient Group Directions .*

## **4. Recruitment, retention and career pathways**

### **4.1 Identification of problems**

Although the increasing number of specialist oncology posts can be welcomed on grounds that it recognises the specialist nature of cancer therapeutics and the contribution made by dedicated staff, it is perturbing in another. The increased demand for oncology pharmacy staff comes at a time when hospitals are having difficulty in recruiting suitably skilled and experienced staff to all types of post, with the result that vacancy levels are running at a very high level. This makes it hard to maintain oncology pharmacy services at current levels let alone expand them. Many hospitals advertising posts have encountered difficulties in recruiting suitably qualified staff and many have failed to recruit or have filled the vacancies with internal applicants depleting their pool of more junior grade of staff (see Appendix 1).

Two other significant problems are affecting oncology pharmacy services. The first of these - gradings creep - is most clearly seen (because of the greater numbers of posts involved) in the data for pharmacists as shown in Appendix 3. Over the last decade, the average grading for an oncology pharmacist has increased significantly. This may be recognition of the developing role of the pharmacist in oncology or it may be that managers are upgrading jobs in an attempt to make inadequate salaries more attractive in a competitive market. In either case, at a time when pharmacists are in short supply and there is no formal training scheme for oncology pharmacists, the end result is likely to be the same – higher graded posts being filled by less experienced staff. This is not desirable for patients or the credibility of the profession.

The second problem, although not unique to oncology, is the lack of a defined career structure for specialist pharmacy staff. The tables in Appendix 3 refer only to Pharmacist Grades B-E (on a scale that runs from A-H) and Technician Grades 2-4 (on a scale that runs from 1-5). The lowest grades on both scales are, effectively, disappearing in many areas as posts are upgraded in an attempt to make salaries more attractive. At the same time, the highest grades are still, almost universally, reserved for managers of very large services and not for those with particular clinical skills or knowledge. The result of this is shown above with intense clustering of posts around the scale mid-points. The scale mid-point can now be reached in a very few years or even months after qualification, but there is then little potential for further progression no matter how excellent an individual is. Thus, there is little incentive offered to staff within the current career structure for them to develop their skills.

## 4.2 Solutions.

An examination of staff grading should be undertaken as a matter of urgency with guidance issued on appropriate grading. This guidance should ensure that staff with appropriate skills can progress to the highest grades without them, necessarily, having to take on large managerial responsibilities. This is, theoretically, possible at the moment but guidance on job grading is now out of date and does not reflect the current marketplace for staff.

Consideration should be given to enhanced payments for staff working in this and other “in demand” specialities, especially in areas of high living costs. At the bottom end of the technician scale, more junior staff are vital for the day to day business of preparing chemotherapy, it is however becoming increasingly difficult to recruit staff especially in London and the South East. At the top end of the pharmacist scale, very experienced and skilled people are being lost to the pharmaceutical industry and to general management, since this is the only obvious route for advancement.

### ***Recommendations:***

- *An examination of staff grading should be undertaken as a matter of urgency with guidance issued on appropriate grading.*
- *It is anticipated that a combination of a review of staff grading and enhanced payments might be effective in tempting some pharmacists and technicians from the much larger pool of community pharmacy into the hospital service.*

## 5. Education, training and continuing professional development

Oncology is a specialised area of pharmacy practice. At present there is no nationally recognised training scheme or mandatory qualification required for pharmacists working in oncology or haematology. A number of the current specialist pharmacists have 'grown' into the posts they currently hold, learning on the job and developing their expertise. Many of these pharmacists may have post-graduate clinical pharmacy qualifications, but few will have completed formal oncology related training.

There are increasing demands on oncology pharmacists due to greater complexity of drug treatment, staff shortages and the current emphasis on Clinical Governance. It is simply unrealistic to assume that staff will absorb the requisite skills by many years of "apprenticeship" at the lower grades.

A review of the methods for training oncology pharmacy staff at local, network and national levels is required as well as an analysis of formal training courses, which may be accessible to oncology pharmacists and technicians. The all-Wales Chief Pharmacists group have recommended that a pharmacist should be appointed to co-ordinate education and training, and advise on audit, practice standards and research<sup>11</sup>. Similar posts in England and Scotland would need to be established or a national post created.

The development of appropriate courses aimed specifically at pharmacy staff is required as a matter of urgency. Training may need to be offered in conjunction with a school of pharmacy but will need to have a substantial input from practising pharmacists and technicians to ensure that it achieves its stated aim of producing competent practitioners.

BOPA need to work with educationalists, the Schools of Pharmacy and other agencies to inform educational commissioning for specialist pharmacists and technicians to help standardise learning outcomes, the assessment of prior learning and develop appropriate courses as well as competency based assessments. The BOPA Education and Training working party has initiated this process.

### ***Recommendations:***

- *A review of the methods for training oncology pharmacy staff at local, network and national levels is required as well as an analysis of formal training courses.*
- *Intensive specialist training courses should be established to help meet the demand for specialist staff.*
- *A lead pharmacist to be appointed to co-ordinate oncology pharmacy education for England, Scotland and Wales.*

## 6. Clinical Research

The establishment of a National Cancer Research Network Co-ordinating Centre is welcomed by BOPA. The demand for resource-intensive pharmacy support for Clinical Trials is increasing steadily and is driven by a number of factors including legislation and GMP requirements. A very substantial workload is generated by poor study design such as the choice of inappropriate infusion solutions and volumes for infusion of cytotoxic doses, and enforced use of wholly inappropriate packaging and labelling of drug supplies. Complicated funding and purchasing arrangements agreed between the pharmaceutical companies and the trial organising bodies also contribute to pharmacy workload. In many cases this results in increased direct and indirect costs to the institution as well as increased risks to patients.

Involvement of oncology pharmacists at the earliest stages of protocol design is essential to address this and to underpin the ability of hospital pharmacies to support clinical trials of new drugs for cancer patients.

Oncology pharmacists and technicians need to explore methods for helping to further cancer research. Research is also required on practical issues relevant to pharmacists providing technical support to oncology patients such as dose-banding, chemotherapy stability and compatibility issues, and the incidence and avoidance of chemotherapy medication errors. An evidence base for oncology clinical pharmacy practice needs to be developed. Establishment of a Chair in Oncology Pharmacy Practice is recommended.

### ***Recommendations:***

- *Research pharmacist posts are established to work within the National Cancer Research Network Co-ordinating Centre.*
- *Pharmacists are involved in the early stage of trial design and become an integral member of trial steering committees.*
- *Oncology pharmacists and technicians need to explore methods for helping to further cancer research.*
- *Establishment of a Chair in Oncology Pharmacy Practice is recommended.*

## 7. Conclusion

BOPA is aware that much of the data to support the involvement of pharmacists in the care of cancer patient and the problems being encountered in providing a high quality service is anecdotal. The DOH systematic reviews of chemotherapy services and the cancer services workforce, which was due to be conducted during 2000, have not included to our knowledge a detailed review of oncology pharmacy services.

A comprehensive national review of the current level of provision of pharmacy services to cancer patients is required. We believe that such a review should focus particularly on pharmacy service but should incorporate the views of the other members of the multi-disciplinary team, i.e. nursing, medical and risk management. It would help to illustrate the current level of service and indicate investment needed to

ensure that oncology pharmacy services meet the required standards and have the capacity to meet the objectives of the National Plan for Cancer.

This type of review has been proposed to the Devon and Cornwall Cancer Services Steering Group (see Appendix 5) but has yet to be funded. The five Trusts making up the Peninsula Group are willing to act as pilot sites for the ational review.

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# Appendix 1

## National hospital pharmacy vacancy survey 1999

**Authors** NHS Pharmacy Education and Development Committee with approval for Department of Health, Office of Chief Pharmacist.

**Purpose** To provide data on aspects of recruitment to hospital pharmacist and technician (MTO) posts.

**Scope** All NHS hospitals in England, Wales and Scotland.

**Method** A questionnaire was sent to each hospital or NHS Trust by the education pharmacist in each region. Non-responders were followed-up with repeated requests. Free text comments were encouraged.

**Results** 287 pharmacies responded out of 297 identified and surveyed (97%). There were 10 non-responders.

### **Previous reports**

Similar reports were issued on 20<sup>th</sup> December 1996, covering the period August 1995-July 1996, and 20<sup>th</sup> December 1998, covering the period August 1997-July 1998.

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### **Headline figures from numerical data**

*Unless otherwise stated, data refer to whole time equivalents (wte) and to changes over the one year period to 31<sup>st</sup> July 1999. Please see Comments for other trends.*

On 31<sup>st</sup> July 1999 there were vacancies for 637 pharmacists and 294 technicians. These included posts for 215 A/B grades, 179 C grades and 138 D grades. 14.7% of all pharmacist posts were vacant, 30.9% of A/B grades, 17.5% of C grades and 9.4% of D grades.

50% of all pharmacies withdrew services or refused new services because of the inability to recruit or retain staff during the year surveyed. This is in addition to the 49% who withdrew or refused services in the previous year.

Although the total number of posts increased during the year, there was a smaller increase in the number of staff employed; only half of the new posts were occupied and thus the number of vacancies increased by 54 pharmacists and 22 MTOs.

92 A-C grade pharmacist posts have been lost in the last year and 181 D-F grade posts gained. A quarter of these changes involved conversion of pharmacist posts to MTO/ATO posts, of which half were to overcome recruitment difficulties and half for skill-mix purposes, but the majority (87%) were regradings to overcome recruitment difficulties. Of 318 changes; only 39 were for skill-mix reasons.

MTO posts show a similar decrease in the lowest grade and increases at higher grades.

51% of hospitals regraded posts for recruitment reasons, in addition to the 43% who did so the previous year. Over the last two years 518 pharmacists (14%) had their posts regraded and a further 255 had salary enhancements in 1998-99 (data not requested for 1997-98).

The grade shift has not solved the vacancy problem; there are now 104 more vacancies at D-F grade than last year.

## Appendix 2

### Pharmacy Staff Monthly vacancy Survey 1999/2000

#### Data for the Trusts in The London Region

	Establishment (wtes)				Vacancy Rate (%)			
	Dec/Jan	November	Difference		Dec/Jan	Novemb er	Difference	
Pharmacist H-E	240.28	273.56	33.28	13.9%	6.2%	9.7%	3.4%	55.2%
Pharmacist D	259.84	268.53	8.69	3.3%	14.3%	11.4%	-2.9%	-20.3%
Pharmacist C	226.22	235.24	9.02	4.0%	25.2%	18.1%	-7.0%	-27.9%
Pharmacist B/A	187.88	203.07	15.19	8.1%	18.2%	5.2%	-13.1%	-71.6%
<b>Totals</b>	<b>914.22</b>	<b>980.4</b>	<b>66.18</b>	<b>7.2%</b>	<b>15.3%</b>	<b>13.4%</b>	<b>-1.9%</b>	<b>-12.4%</b>
Technicians MT)5/4	95.18	107.88	12.70	13.3%	7.2%	7.8%	0.6%	9.0%
Technician MTO3	245.16	265.54	20.38	8.3%	5.3%	9.4%	4.1%	76.5%
Technician MTO2/1	319.98	333.04	13.06	4.1%	21.6%	18.6%	-3.0%	-14.0%
Trainee Technician	92.00	94.00	2.00	2.2%	3.2%	5.3%	2.1%	64.2%
<b>Totals</b>	<b>752.32</b>	<b>800.46</b>	<b>48.14</b>	<b>6.4%</b>	<b>11.6%</b>	<b>11.0%</b>	<b>-0.6%</b>	<b>-5.2%</b>
SATO/ATO/ Ancillary	320.67	317.54	-3.13	-1.0%	9.7%	11.1%	1.4%	16.6%
A and C	154.63	168.94	14.31	9.3%	9.1%	11.0%	1.9%	20.8%
<b>Totals</b>	<b>475.3</b>	<b>486.48</b>	<b>11.18</b>	<b>2.4%</b>				
<b>All Staff Groups</b>	<b>2142.84</b>	<b>2267.34</b>	<b>125.50</b>	<b>5.9%</b>				

## Appendix 3

### Changing chemotherapy workload in 4 pharmacy reconstitution units.

*Note:* The units providing the information (Clatterbridge, Guy's, Royal Marsden, St Bartholomew's, Walsgrave and UCL) were those of BOPA committee members and cannot be said to provide a representative sample of UK pharmacy units. However, there is no reason to believe that they are atypical and the trend of increasing workload that they illustrate appears to be a common one. Indeed it is reasonable to suppose that cancer Units (under represented here) are likely to show a bigger percentage increase in their workload given the particularly rapid expansion of simple chemotherapy treatments for cancers of the breast and bowel in recent years.

#### A Rising workload

Year	Chemotherapy Dose Unit per annum							Total
	Dept A	Dept B1	Dept B2	Dept C	Dept D	Dept E	Dept F	
2000	18,000	22,585	42,419	33,000	24,786	17,888	51,667	210,345
1999	17,100	22,245	46,668	27,264	24,030	16,334	50,220	203,861
1998	13,600	25,799	51,772	25,570	25,574	15,888	34,209	192,412
1997	13,000	21,101	57,897	23,312	23,315	15,149	31,286	185,060
1996	11,500	15,820	56,314	22,576	20,919	11,516	26,891	165,536
1992	N/A	14,386	41,107	N/A	N/A	4,528	N/A	

#### B. Changing workload

For three units it was possible to determine the ratio of inpatient/outpatient ratio for doses prepared in recent years. In each case this has undergone a steep reduction. This is significant since it represents a shift towards day case chemotherapy which is much more challenging for preparative units since the treatments are usually required with great urgency by patients waiting to have their chemotherapy and return home

Year	Ratio IP dose Units prepared:OP dose units prepared		
	Centre B1	Centre D	Dept E
2000	0.98	1.49	N/A
1999	1.29	1.70	0.95
1998		1.72	1.18

## Appendix 4

### Survey of vacancies for Pharmacists advertised in the Pharmaceutical Journal for a 12 week period from the beginning of September.

*Note: Jobs were included if they included “oncology” in their title or “haematology” and gave a description that made it clear that haematological malignancy was an important aspect of the job. No attempt has been made to include other jobs where a considerable portion of the work may be for oncology/haematology patients. Where flexible grading was described, the highest possible grade was included.*

Year	GRADE						
	B	C	D	E	F	Total	Average Grade Score*
<b>1990</b>		<b>3</b>	<b>3.5</b>			<b>6.5</b>	<b>3.54</b>
<b>1995</b>	<b>2</b>	<b>3</b>				<b>5</b>	<b>2.60</b>
<b>1998</b>		<b>5.5</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>15.5</b>	<b>3.90</b>
<b>1999</b>		<b>5</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>18</b>	<b>4.06</b>
<b>2000</b>	<b>2</b>	<b>6</b>	<b>16</b>	<b>6</b>		<b>30</b>	<b>3.87</b>

\*Where B=2, C=3, D=4, E=5 and F=6.

**Survey of vacancies for Pharmacy Technicians advertised in the Pharmaceutical Journal for a 12 week period from the beginning of September.**

*Note:* Jobs were included if they included “oncology”, “cytotoxics” in their title or “haematology” and gave an indication that made it clear that haematological malignancy was an important aspect of the job. No attempt has been made to include other jobs where a considerable portion of the work may be for oncology/haematology patients. There are likely to be many of these, since most technician posts are not highly specialised and tend to be either generalist or divided into production and dispensary areas only.

	Grade				Average Grade Score*
	MTO2	MTO3	MTO4	Total	
1990		1		1	3
1995	1			1	2
1998	2			2	2
1999				0	
2000	3	4	1	8	2.75

\*Where MTO2=2, MTO3=3, MTO4=4

The above figures illustrate the increasing number of posts being advertised for specialist pharmacists and pharmacy technicians to work in oncology over the course of the last decade. Whilst they illustrate a clear trend, they should not be used as any sort of measure of staffing requirements. This is because the majority of pharmacy services to oncology patients are still provided by staff who have other responsibilities and whose job title does not make specific reference to their contribution to cancer services.

## **Appendix 5**

### **Devon and Cornwall Cancer Services Steering Group**

#### **Provision of oncology pharmacy services across the Peninsula**

##### **1. Scope of paper**

Developments in the indications for treatment and in the range of drugs has led to increasing pressure on the mechanisms to prepare and support chemotherapy administration over recent years.

The NHS Cancer Plan<sup>1</sup>, Improving the Quality of Cancer Services<sup>2</sup> and the Draft Manual of Cancer Services Standards Document<sup>3</sup> give guidance on what comprises a high quality service, as an aid to raising standards and ensuring uniformity in the pharmacy service to cancer patients.

In June 2000, the National Director of Cancer Services, Professor Richards, asked the British Oncology Pharmacy Association (BOPA) to respond to the draft manual. The BOPA response welcomed the national recognition of the impact of oncology pharmacy services but highlighted that national achievement of the standards will require investment and reorganisation.

This paper is written on behalf of the Peninsular Cancer Drug Forum and requests the support of the Steering Group in undertaking an assessment of the chemotherapy support services across the Peninsula network. The assessment will focus on the pharmacy service but will incorporate the views of the other members of the multi-disciplinary team, i.e. nursing, medical and risk management. It will illustrate the current level of service and indicate investment needs to ensure the oncology pharmacy service across Peninsula meets the national standards.

It is planned that the outcome will be available to other regional and local initiatives

##### **2. Proposal**

The key members of the oncology pharmacy team would be identified by contacting the Trust Chief Pharmacists. A meeting would be arranged to visit the sites and meet with the staff to discuss the following issues:

###### **2.1 Oncology service**

The size of the oncology unit and associated chemotherapy service would be established, e.g. number of patients, number of in-patient beds, chemotherapy doses, clinical trials.

## **2.2 Oncology pharmacy service**

**2.2.1 Technical service** – the service capacity for the preparation of chemotherapy is based on the staff skill-mix, the facilities and the complexity of chemotherapy doses prepared in the unit. Discussion would explore these issues, the mechanisms in place to forecast changes in demand and the present limitations on the service.

**2.2.2 Clinical service** - the provision of pharmaceutical services to the oncology ward, ward area and outpatient facility. Discussion would explore the job roles, areas of work and other commitments, e.g. clinical trials, policy development.

**2.2.3 Support facilities** - the involvement of the pharmacy team in other activities, e.g. drug budget planning, purchasing, audit, and teaching, would be discussed.

## **2.3 Incorporation of development initiatives**

There have been a number of initiatives that have been shown to streamline oncology pharmaceutical services. These include:

- *Use of licensed bulk preparation facilities*
- *Dose banding*

Consideration of these initiatives and the extent of their introduction would be established.

## **2.4 Recruitment and retention of staff**

Hospital pharmacy is currently experiencing recruitment problems. Discussion would include the length of time taken to fill established oncology pharmacy posts and the impact on bidding for further support. It would be useful to differentiate between the impact of local issues, e.g. location, appropriateness of grade, job structure, support staffing, and the impact of the national situation.

## **2.5 Computerised prescribing support**

Personal experience has shown that these can be difficult to install and interface with other systems but that the benefits that can be afforded from these systems are enormous, especially for pharmacy, e.g. reduction of 75% in batch document preparation time, co-ordination of the preparation process, prescription quality. The experience and use of these systems would be discussed.

## **2.6 Audit**

The Peninsula Cancer Drug Forum recognises the importance of routine collection of cancer prescribing statistics. The involvement of pharmacy staff in a prescribing audit would need to be discussed.

## **2.7 Chemotherapy working party**

The feasibility of establishing a Peninsula oncology pharmacy group, to share practice developments and promote an integrated service, would be discussed.

## **3. Timescale and costs**

Dr Libby Hardy would undertake the visits. Libby has held the post of Senior Pharmacist for Haematology and Oncology at the Royal Devon and Exeter Hospital for eight years. She is the oncology pharmacy representative on the Peninsula Cancer Drug Forum and a council member of the British Oncology Pharmacy Association.

It is estimated that the visits and report writing will take seven days. The cost of the work, including travel expenses, will be £950.

Alison Hodgetts will assist Libby in the literature searching and writing the report.

The work would be undertaken during January and February 2001. The report would be completed by the end of March 2001.

## **4. Outcome**

This paper outlines a method of assessing the current oncology pharmacy service across the Peninsula network.

It is hoped that this proposal would mark the start of increased co-ordination of oncology pharmacy practice across the five Trusts. It would also establish a mechanism to ensure national standards of oncology pharmacy care are available to all Peninsula patients.

On behalf on the Peninsula Cancer Drug Forum, the authors seek agreement to the proposal and welcome the comments of the Steering Group members to ensure the report content reflects the needs of the service.

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