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Towards a Framework of Advanced Nursing Practice for the Clinical Research Nurse in Cancer Care

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ABSTRACT

Background

The Nursing and Midwifery Council (NMC), the regulatory body in the UK, is in the process of opening a new part of the register for Advanced Nurse Practitioners. This presents a potential opportunity for clinical research nurses within cancer care.

Objectives

To explore the role of the clinical research nurse in cancer care whilst considering whether the role can be performed at a level that could be considered advanced practice. Consequently, a developmental model to enable the clinical research nurse to work towards an advanced level of practice is explored.

Method

A literature review of the clinical research role in cancer care and analysis of published frameworks of advancing practice in nursing.

Discussion

Advanced practice is not defined by the role but by the level of skill to which it is performed. There is scope within the role of the clinical research nurse to practice at a level beyond initial registration. A framework for development towards advanced practice within the cancer clinical research nurse role is suggested.

Conclusion

Advanced practice within clinical research nursing is possible and provides a further level of career development that may facilitate movement between research and clinical practice. This could aid awareness, recruitment and retention of research staff within cancer care and other specialities.

Keywords: advanced practice, cancer care, research nurse, conceptual framework

Background

In the United Kingdom (UK) there is a noticeable momentum concerning advancing nursing practice that has been recognised by the central government and regulatory agencies. Recently, the Department of Health (DH) introduced the Agenda for Change (DH 2003) as a new pay structure applicable to the majority of National Health Service (NHS) employees to promote increased equity across the service. An attempt was made to reduce the number of titles used by health care professionals; this proved to be an unsettling experience for many nurses working in advanced clinical roles.

Within the profession, the Nursing and Midwifery Council (NMC 2005) proposed a framework aimed at providing a regulated level of practice beyond that of initial nurse registration to protect the public and provide a recognised standard. The framework provided grounds for speculation and debate surrounding which nurses may be permitted to use the title of 'Advanced Nurse Practitioner'.

Within cancer care, the clinical research nurse has a diverse and complex role, one which could be considered to involve a level of nursing practice beyond initial registration. The benefits or rationale of a research nurse registering as an advanced practitioner may not be apparent. It may only add another title, possibly 'Research Nurse Practitioner'. It would, however, if sufficiently acknowledged and understood, provide a more flexible career path for nurses working within clinical research; it could afford a level to work towards and extend existing careers in research, or facilitate movement into a more clinically focused post. A flexible career path through research and back to clinical practice may encourage more nurses to consider clinical research as a career option, encouraging recruitment and facilitating a greater appreciation of clinical research in general.

Aim and Objectives

The aim of this paper is to examine the role of the clinical research nurse in cancer care and the potential within this role to practice at an advanced level, which will hopefully provide some valuable clarity to nurses practicing in this specialty area. Three main questions were posed.

- 1. What are the main elements of the clinical research nurse role within cancer care?
- 2. Can the role of the clinical research nurse be applied to models of advanced practice?
- 3. If the potential to practice at an advanced level exists within the role, how can the clinical research nurse develop towards becoming an advanced practitioner?

A model for this development is consequently explored.

Method

A literature review of the role of the clinical research nurse role and analysis of published frameworks of advance practice were utilised to explore the concept of advancing practice within the context of clinical research nursing in the UK and present a developmental model.

The literature search

To identify literature pertaining to the role of the research nurse, a systematic search of the MEDLINE and CINAHL databases and the Internet via Google Scholar was conducted. The search terms 'research', 'nurse', 'clinical trial', 'study site' and 'coordinator' were initially combined in the search for relevant literature. Findings were then combined with the term 'cancer' to further narrow the literature search to only those articles that relate to oncology. Only literature regarding the UK was retrieved in accordance with the objective of the search. In addition, only articles published during the period 2000 - 2005 have been accessed due to the considerable impact on service brought about by the publication of The Cancer Plan (Department of Health 2000), which recommended the formation of the National Cancer Research Network (NCRN) and recognised the importance of a dedicated cancer research workforce, to integrate research into cancer care. The final selection of eight articles was obtained from a total of 246 potentially relevant citations by excluding literature that did not directly relate to the role of the research nurse (or study site coordinator, as the two titles are often used interchangeably). NCRN, local Research and Development, Royal College of Nursing (RCN) and NMC policy and guidance articles were searched for relevance and incorporated into the investigation, even if published outside of the search period (e.g. RCN 1998). Textbooks relating to cancer nursing practice were also searched for applicable chapters and perspectives.

The literature retrieved as a result of the above search regarding the role of the research nurse was of variable quality and lacked empirical contributions. The majority of the articles consisted of expert opinion. One was a systematic literature review, one was a post-intervention role evaluation and the remaining being expert opinion supported by relevant literature. There was limited criticism of previous literature within the work retrieved, but this may be due to the searches of those works producing papers that were largely anecdotal or descriptive with no empirical evidence (Raja-Jones 2002). This would suggest that little of any further empirical evidence has been published within the last three years, although the results of a more thorough systematic review may have had slightly different conclusions. The current search strategy revealed that there was a significant amount of literature relating to the role of the nurse as a researcher, but for the most part they are not empirical. There was also an abundance of American literature concerning the

clinical research nurse; future work extending the analysis to include this body of work, would be valuable and may identify national and cultural differences.

Models of advanced practice specific to nursing were drawn from a previously unpublished systematic search of the nursing literature, which identified seven conceptual models and frameworks (Kirshbaum & Hempshall 2004) out of 84 retrieved articles published between 1994 and 2004 on the subject of the advanced clinical nurse. The models that seemed most appropriate and adaptable to the role of the research nurse were selected to address the aims of the current investigation.

The role of the clinical research nurse within cancer care

Common themes have emerged from the literature, which demonstrates a degree of congruency. For the purposes of synthesis the themes have been divided into: facets of the role of the clinical research nurse in cancer care (Box 1) and the knowledge and skills required for this role (Box 2). Some skills are not explicitly stated in all of the literature, but are essential for specific aspects of the role. For example, assessment skills are not noted in all of the papers, but are an integral requirement for the screening of potential trial participants.

Raja-Jones (2002) explored the role conflict between the clinical nurse specialist and clinical research nurse, and suggested that research can be considered a clinical speciality. The clinical nurse specialist role, along with the nurse practitioner role, is often referred to in the literature on advanced practice, however, the question remains concerning the place of the clinical research nurse in advanced practice.

The role of the research nurse as applied to frameworks of advanced practice

It appears that the concept of advanced practice stems from Benner's (2001) model of practice levels developed in 1981 that delineates the progression of the nurse from beginner to an expert practitioner. Hamric (2000) found that many subsequent models used and adapted Benner's model. Benner suggested that experience is a requisite for expertise, where it is necessary to experience many clinical cases over time to acquire a sufficient evidence base for advanced clinical judgement. She subsequently proposed that early specialisation is therefore advantageous to attain increasing levels of expert practice, but also states that experience is more than the mere passage of time, suggesting that promotion should take place on the basis of skill rather than longevity. Specialisation is therefore not automatically an indication of advanced practice. Hamric (2000) supports this position stating that almost all nurses work in a specialised area with some roles considered specialist and some classed as involving advanced education, but not necessarily being advanced practice roles. If research nursing is considered a speciality it should be clear that it does not necessarily involve practicing at an 'advanced' level. However, it is proposed that the pathway to enable progression to a higher level of practice should be recognised.

There are a range of frameworks designed to encompass advanced practice. The application of one theory to a nursing role in order to declare that it is an advanced practice role is insufficient. Benner's work is the basis for many of these theories (e.g. Hamric, 2000), therefore any claim of advanced practice would be better supported if several frameworks were to demonstrate it. The amount of rigour with which an advanced practice framework is applied to a role description must also be considered. The work of Hamric (2000) may be valuable when discussing the clinical research nurse role in general, but it must be viewed within the context of the American, not British health system. There are variables such as the finance of care and the educational attainment of nurses that may affect the transference of the model.

In exploring new roles, Read *et al.* (1999) found that clinical nurse specialists (CNSs) do not necessarily hold a first degree, whereas in the USA a masters degree for this level of practice is this the norm. This educational difference is likely to be resolved in the future as practitioners will increasing be required to demonstrate Masters level thinking (Woods 1997, Castledine 2003, Department of Health 2004, Ball 2005).

Ball & Cox (2003, 2004) suggested the theory of legitimate influence which could be adapted to the role of the clinical research nurse, but as it was conceived with the critical care inpatient setting in mind. Further development of the theory is required to be able to generalise it. The basis of this theory is clinical credibility resulting from negotiation with other clinical groups, but based on the practitioner having clinical expertise. Demonstrating this is no easy task, but as knowledge of the disease and its management is required for the role of the clinical research nurse (James & Armitage 2002, Kenkre & Chatfield 2004, Cox et al 2005), it could be argued that this constitutes clinical credibility. The theory builds on the concept of advanced practice examining its purpose, the potential outcomes, and influences on these. The strategic activities and intervening conditions relate to the outcomes of the interventions made by a clinical research nurse, but there is an emphasis on restoring patients to health, which is not always associated with this role, at least not in early phase clinical trials for cancer where the patient is not guaranteed to benefit from treatment.

Two frameworks that appear to reflect the role of the clinical research nurse in the UK are those of McGee & Castledine (2003) and Atkins & Ersser (2000). McGee & Castledine (2003) suggest three key elements of advanced nursing practice: professional maturity, challenging professional boundaries and pioneering innovations; These are very broad elements that are open to interpretation. This allows application to a number of nursing roles, but one needs to ask: what is

considered to be expert practice, by whom and why? (McGee & Castledine 2003). The three elements are not merely competencies to be achieved, but together demonstrate a holistic view of the practitioner including the personal values and attributes that contribute to the role to achieve advanced practice. However, it is not stated that all components are equal. Woods (1997) supports the suggestion that all role components do not share equal significance or importance, expressing that the temptation to prepare an 'all-singing, all-dancing super nurse' should be resisted and tempered by the reality of clinical practice (p821).

When defining professional maturity it is suggested that the practitioner should have wide ranging experience in different settings and with diverse client groups. This contradicts Benner's (2001) suggestion that early specialisation is advantageous. Early specialisation may enable quicker progression towards specialist practice in a very narrow area but will not fully prepare the practitioner for situations outside of their sphere of knowledge. If placed in an unfamiliar environment, a practitioner who specialised earlier may take longer to progress to the level of expert again in comparison to someone with wider experience. Unfortunately the current career structure for nurses within the UK does not presently support this. In order to progress, nurses are normally advised to stay within a speciality or one that is related; movement between specialities is not encouraged. This often means that the experience gained in other specialities is not always given the value it deserves. It may be worth noting that the recent change to the NHS pay structure (DH 2003) has not addressed this issue.

The second element of advanced nursing as suggested by McGee & Castledine (2003) is that of challenging professional boundaries through collaborative working and leadership to enhance patient care. Corner (1997) notes that cancer nursing historically evolved from the role of the research nurse assisting clinical trials of

cancer treatments. The view that research nurses are frequently seen by colleagues as mere data collectors (Raja-Jones 2001, Kenkre & Chatfield 2004) is contestable in light of current practice. As the role of the clinical research nurse may not be understood by others including nurses and other healthcare disciplines, there is a need for self-promotion of the role. Within the conduction of a clinical trial, it is well documented that the research nurse can demonstrate collaborative team working and will often provide leadership (RCN 1998, Kenkre & Foxcroft 2001, Raja-Jones 2002, Richardson et al 2002, Kenkre & Chatfield 2004, Cox et al 2005).

The third element, pioneering innovations, is inherent in the role of the clinical research nurse where critical evaluation of each trial, assessment of every potential participant and collaborative working is required to ensure ethical practice (RCN 1998, Kenkre & Foxcroft 2001, Raja-Jones 2002, Richardson et al 2002, Kenkre & Chatfield 2004, Cox et al 2005).

Castledine (2003) also proposed specific criteria, roles and functions of advanced nurse practitioners, divided into seven categories that concur with the fifteen attributes of advanced nursing practice identified by Atkins and Ersser (2000). These can be applied to the elements of the clinical research nurses role (Box 1). The attributes identified by Atkins & Ersser (2000) form part of a model of education for advanced nursing practice that identifies opposing forces within advanced practice education. In an attempt to be all encompassing, they form an unnecessarily complicated framework, but these elements are concurrent with the role of the clinical research nurse.

The clinical research nurse role can therefore be applied to frameworks of advancing practice and it could be concluded from this that the research nurse is therefore an advanced practitioner. Another interpretation would be, that the research nurse role

and models of advanced practice can therefore be easily applied to each other due to the role of the research nurse being multi-faceted and models of advanced practice aiming to be applied to any area of nursing.

Towards a framework for advanced nursing practice within clinical research

In applying the role of the research nurse and examining different frameworks, it would seem that the elements or aspects of a role alone cannot depict advanced practice. Advanced practice is demonstrated by the level of skill with which these are performed, suggesting that there is a personal element to this. Masterson and Mitchell (2003) discuss personal competence and the limits of such models. Brykczynska (2002), however, states that the critical essence of advanced nursing practice in cancer care is the ability to acknowledge the "awesomeness of the human individual" and refers to this as a "wise nursing attitude" (p40). Most notably she states that if this interpersonal quality and virtue of humility in the face of wounded humanity is lacking, then no amount of courses and degrees in cancer nursing will make an advanced practitioner out of a cancer technician. This is similar to Benner's (2001) concept of the helping role of the nurse. Benner described this as a challenge to nurses to own their own helping role and, in the same manner as Brykczynska, states that this unique contribution is not easily replicated, standardised or interpreted.

For the clinical research nurse to develop towards advanced practice, a framework for the clinical research nurse in cancer care is suggested (Figure 1 and Box 3). The helping and caring role is placed at the centre, with surrounding role aspects that would be performed at varying levels depending upon the area of interest that the practitioner wishes to develop to an expert/advanced level. The proposed framework (Box 3) suggests ways for personal advancement and given the requirements for qualifications and certification suggested in the Manual for Cancer Services (DH 2004), it could be construed that advanced practice is achieved when all qualifications are achieved, if this is at all possible. It is therefore important that the caring and helping role is central to practice. The framework is short in comparison to the NMC competencies for advanced practice and only suggests ways to develop role aspects to achieve the NMC competencies. The suggested framework does not expand on a definition of assessment as much as that of the NMC and separates the professional role aspects. It could be construed that assessment skills hold less value than professional skills, so for that reason, the fact that suggested role aspects can hold different value at different stages of a career, should be kept in mind.

This adapted model is still dependent on the concept of advanced or expert practice in each clinical area. The frameworks for advanced nursing practice considered for the purpose of this paper are littered with concepts such as expertise, mastery, credibility and competence which are all subject to interpretation. Instead of defining advanced practice, the concept has been divided into role elements, but who will decide if a person is practicing at an advanced level? The debate above could be weighted to suggest the role of the clinical research nurse exists as an advanced practitioner, but who would be able to confirm or contradict such a claim? Who could judge the personal aspect of the role and how? Only another advanced practitioner in the same field would have enough of an insight into the role to debate it, as by the very nature of the role. No one else would possess the particular experience, knowledge and skill as the individual advanced practitioner. In addition, the critical evaluation of the effectiveness of an individual in an advanced practice role would be difficult to assess and require valid and reliable measurement data that would be ideally collected before and after appointment to the post.

Discussion

The NMC (2006) has provided a definition of advanced practice listing what may be expected of 'highly skilled nurses' who will be able to use the title. This definition provides some information as to the expected role of an advanced practitioner, but specific competencies that are matched to the Key Skills Framework (Department of Health 2004) have also been made available. These competencies, whilst being more explicit, are comparable to the elements of advanced practice suggested by McGee & Castledine (2003) and Atkins & Ersser (2000). Guidance as to how competencies can be demonstrated is yet to be provided, but not all will be applicable to every role. Depending on how the competencies are applied in practice, some nurses practicing at an advanced level according to current available theories may not be permitted to use the title.

The Clinical Research Nurse within cancer care would be able to meet many of the competencies listed by the NMC, but not all. For example, the ability to prescribe would only be applicable to approved medications when used on their own, not within the context of unknown interactions with experimental, unlicensed drugs.

The Clinical Research Nurse role within cancer care can be applied to a number of frameworks for advanced practice, including the competency framework proposed by the NMC. This provides a higher level of practice for nurses to develop towards if they so wish. Kenkre *et al.* (2001) suggest four career pathways for the clinical research nurse: clinical research, support/management, academic or pharmaceutical. The practitioner may wish to develop research ability, managerial skills or evaluation and auditing skills to a higher level depending upon their chosen career path. Within cancer care nurses may also choose to proceed to specialised clinical positions.

To make these career pathways attainable research nurses need access to a wide variety of educational and developmental opportunities which will require a certain amount of investment by their employers. The publication of Best Health for Best Research (DH 2006) states an intention to attract, develop and retain research professionals. The adoption of a developmental model such as the one discussed in Box 3 could provide a career choice as a clinical research nurse with the potential to develop towards registration as an Advanced Nurse Practitioner. This may attract more nurses towards a research career and may retain those already working within clinical research. For those who decide not to stay within research, the registration could provide a pathway back into more clinically based practice while utilising and developing their research aptitude and skills within patient service and professional practice development sectors of the National Health Service.

Conclusion

The role of the clinical research nurse, specialising in the care of research participants is one that is vital and rewarding. It is expanding to meet the increasing needs of clinical research participants in the UK and the full extent and impact of the role on both patient care and research still requires thorough exploration. Examination of current models of advanced practice suggest that the role has the potential to be, but is not necessarily, advanced practice. There is no doubt that the role of advanced practitioner within clinical research would have implications for workforce development and education; this is a challenging and exciting prospect which has the potential to deliver positive rewards for both nurses and patients.

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Box 1: Aspects of the Clinical Research Nurse Role

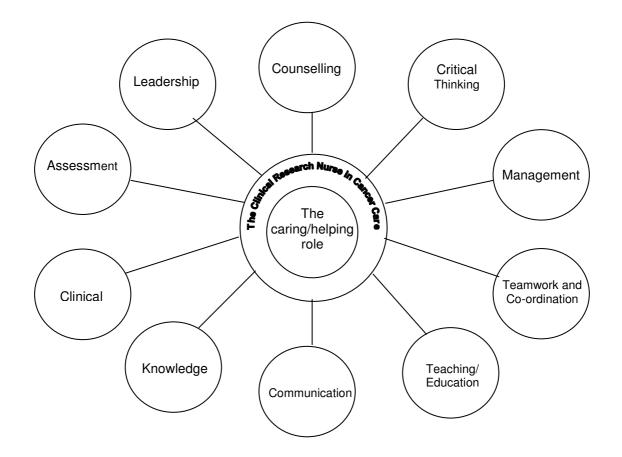
Assessment
Screening and recruitment of patients
Informed Consent Process
Clinical Care including giving of treatment and psychological care
Point of contact for patient for advice (including health promotion)
collection and processing of samples
Co-ordination of patient care including treatment, tests and follow-up
Advocate
Liaising with members of the MDT
Liaising with representatives of sponsoring company
Educator
Trial management
Ensure ethical conduct of trial including REC submissions
Data collection and management
Protocol writing
Autonomy
Financial responsibility
Staffing responsibility
Policy development
Maintenance of records
Data analysis, reporting and dissemination
Develop research potential and agenda at local, regional and national levels

Box 2: Knowledge and Skills required for the Clinical Research Nurse Role

Knowledge of the informed consent process
Knowledge of research protocols including experimental treatments and side effects
Knowledge of standard treatments including side effects
Jnderstanding of the specific disease
Inderstanding of regulatory requirements within and outside employing institution.
Knowledge of research design, methodology and the analytical process
Drganisational skills
Good communication skills
Critical Thought
Reliability and self-discipline
Ability to practically apply a research protocol within the pragmatic local requirements
Numerate with good IT skills
Management skills including those of time, finance, staff and project
eadership skills
Feaching and Presentation skills
Clinical skills

Figure 1: A developmental model for the role of the clinical research

nurse in cancer care



Each aspect is performed at least competently, but it is not necessary for all aspects to be performed at the expert/advanced level.

Adapted from Castledine (1996), Ersser (2000), Lenburg (2000), Atkins & and Benner (2001), Brykczynska (2002).

Box 3: A developmental model for the role of the clinical research nurse in cancer care

Role Aspect	Role requirements	Development Possibilities
Assessment	Ability to perform holistic	Consider alternative assessment
	nursing assessment of the	methods used by nurses and other
	patient face to face or over	healthcare professionals to improve
	the telephone and respond	practice and adopt an assessment
	accordingly within the scope	that is refined and effective for the
	of practice.	cancer research setting.
Clinical	These include close	Ensure safe working practice in
	monitoring of patients during	compliance with the Scope of
	treatment and extended	Professional Practice (NMC 2004)
	roles; venepuncture, IV	and Manual of Cancer Services (DH
	cannulation, PICC line care,	2004) guidance regarding
	Hickman line care,	chemotherapy services.
	administration if IV and	
	cytotoxic therapies	
Communication	Communicate effectively	Communication skills do not require
	with patients and their	accreditation in the way that is
	families, other members of	required of practical skills, but are of
	the multi-disciplinary team,	vital importance. Self-reflection and
	representatives of sponsor	feedback from others can provide a
	companies.	measure of skill.
Counselling	Support patients through	Formal accreditation of these skills
	diagnosis, treatment and	will be required by specialist
	research. Respect spiritual	practitioners in cancer care (DH
	beliefs and provide support	2004). Undertaking a formal course to
	through grief and loss.	reflect upon, expand and refine
		current skill would be advantageous.

	evaluate care and research	demonstrated through formal
	to enable effective,	qualification, or undertaking nursing
	evidence-based practice.	research. Critical thinking can be
	Critically consider research	developed to doctoral level if desired.
	protocols to evaluate	The evaluation of care can also be
	whether they are appropriate	developed in the same way as
	to the local situation and	assessment skills.
	population	
Management	Time, project and resource	Managing more extensive projects
	management are all required	with multiple sites and larger budgets
	as part of the clinical	would be a way to develop
	research nurse role.	management skills. The management
		of personnel would also extend this
		skill or a management qualification
		could be undertaken.
Leadership	Leadership is demonstrated	Leadership is closely linked to
	through the promotion of	management and teamwork and is in
	integrating research into	essence the influence that can be
	practice when working with	exerted over professional thinking,
	other professionals. It is also	policy and practice. Evidence based
	demonstrated through the	information is required to underpin
	dissemination of information	this. Leadership is dependent upon
	via publication and the	personal qualities and may therefore
	constant questioning and	be developed through the
	evaluation of current	examination of personal values.
	practice.	
Teamwork and co-	This is necessary for holistic	Understanding the roles of other
ordination	patient care and safe, ethical	healthcare professionals can help
	conduction of clinical trials	working practice. Taking time to

		discuss or observe the role of others
		can enhance working practice
		through understanding and respect.
Knowledge and	The disease and its	Knowledge can be extended through
experience that	standard management, any	a variety of educational interventions
facilitates	trial therapies and new	but it is the synthesis and application
autonomous	innovations, research	of this knowledge within the context of
practice	methodology and	experiential learning that denotes the
	regulations, health and	level of practice.
	research policy and	Requirements of specific courses (DH
	legislation, professional	2004) attempt to describe advanced
	issues. Knowing ones	practice. Undertaking education
	individual limitations and	specific to cancer and its treatment or
	recognising when to ask for	research methodology can enhance
	guidance or assistance are	practice, but possibly the most
	essential	valuable part of this is the interaction
		and exchange of ideas with other
		nurses wanting to advance practice.
Teaching/Education	Teaching of patients and	Accreditation in teaching methods,
	other healthcare	evaluation of teaching sessions and
	professionals is undertaken	reflective practice can enhance
	as part of the role, but	practice.
	currently no qualification is	
	held.	
Helping/Caring role	This is the core of cancer	This cannot be accredited but may be
	nursing and undertaken by	improved and developed through
	all nurses to some level.	reflective practice.
L		

Adapted from Lenburg (2000), Brykczynska (2002), Castledine (1996), Atkins & Ersser (2000) Benner (2001) and NMC (2006)

Reference	Aim	Methods	Key findings	Comments
Raja-Jones,	To compare the role of	Systematic Literature Review. A	The roles are explored but a	A thorough and critical review of
H. (2002)	the clinical research	search of CINAHL, MEDLINE and	comparison could not be made	relevant literature. An interesting
	nurse to that of the	breast cancer web pages as well as	due to evidence regarding the	question that requires revisiting when
	clinical nurse specialist.	inverse searching was performed.	role of the research nurse being	the role of the research nurse is fully
		Articles, written in English, relating to	largely descriptive, anecdotal	explored.
		nursing roles within oncology, breast	accounts.	
		cancer, research and nurse		
		specialists were retrieved.		
James, N. &	To present an overview	Journal Article/ Expert Opinion	Mainly focuses on an overview of	Limitations of the literature used are
Armitage, F.	of clinical trials in cancer		clinical trials but the main	not stated and it is descriptive rather
(2002)	care and discuss the		responsibilities of the research	than critical, but the authors are
	role of the research		nurse in cancer care are listed.	employed as research nurses.
	nurse in such trials.			
Kenkre, J. &	Aims to explore	Journal Article/ Expert Opinion	It is widely accepted anecdotally	Not presented as a systematic
Chatfield,	opportunities for nurses		that nurses are working as Study	review although the criticism of a lack

Box 4: The role of the clinical research nurse literature matrix

D.(2004)	within clinical research		Site Coordinators but notes that	of recent evidence suggests that
			there is very little up to date	some formal search has taken place.
			evidence regarding the role of the	The target audience is associated
			CRN and how long nurses stay in	with the pharmaceutical industry.
			post.	
RCN (1998)	Identifies jobs and	Employment guidance	Suggests appropriate clinical	Research based employment brief
	outlines job descriptions		grades and salaries for research	for nurses and negotiators. Explores
	for CRNs. Explores		nurses.	the role of the research nurse in the
	education and careers			context of ensuring fair pay and
	for nurses in clinical			conditions. References from 1990's
	research.			are not criticised and onlt half relate
				to the role of the CRN.
NCRN (2003)	To clarify the role of the	Briefing Note	Summarises the implications of	Applies to nurses working within
	research nurse with		current legislation, regulation and	cancer clinical trials in the UK.
	regard to informed		guidance, summarising that these	Discusses the current situation but
	consent		conflict and does not provide a	does not provide guidance for future
			clear indication of what the	development or clarify the position of

			limitations of the nurse's role in	nurses or their employers.
			informed consent should be.	Descriptive rather than critical.
Cox, A. et al.	To evaluate the	Evaluation of the introduction of	Clinical Trial Officers created an	Mix of rural and urban areas within
(2005)	introduction of Clinical	clinical Trial Officers through	alternative method of staffing for	one cancer research network in the
	Trial Officers into a	recruitment figures and semi-	cancer research networks.	UK. Short term evaluation of the
	regional cancer research	structured interviews with	Recruitment to clinical trials	intervention. A longer term evaluation
	network in order to	stakeholders and focus groups of	increased.	considering recruitment and training
	increase recruitment.	post-holders		costs and retention should be
				considered before further
				implementation.
Kenkre, J. &	To inform readers of the	Journal Article/ Expert Opinion	Suggests a career pathway in	Limitations of literature used not
Foxcroft, D.	knowledge required to		clinical research, outlining the	stated.
(2001)	conduct clinical trials to		role, experience, knowledge,	
	recognised standards		training, skills and desirable	
	and explore clinical		qualifications for a clinical	
	research as a career		research nurse from grade E	
	pathway		through to I.	

Richardson,	To explore nursing	Literature Review/Expert opinion	The research nurse role includes:	Limitations of literature used not
A. et al	research in cancer care.		Provision of direct care,	stated.
(2002)	Nursing involvement in		administration of investigative	
	clinical trials is		therapy, observation of	
	discussed as part of this.		treatment-related side effects,	
			patient advocacy , organisation of	
			the study, staff education and	
			data collection	