

# **Ageism and age discrimination in secondary health care in the United Kingdom**

**A review from the literature**

commissioned by the  
**Department of Health**

carried out by the  
**Centre for Policy on Ageing**

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Principal author: Nat Lievesley

Review team: Ruth Hayes  
Kate Jones  
Angela Clark

Director: Gillian Crosby

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# Contents

<b>1</b>	<b>Context and Introduction</b>	<b>5</b>
<b>2</b>	<b>Ageism and age discrimination</b>	<b>9</b>
<b>3</b>	<b>Measuring ageism and age discrimination</b>	<b>11</b>
<b>4</b>	<b>Forms and levels of discrimination</b>	<b>12</b>
<b>5</b>	<b>Ageist attitudes in healthcare</b>	<b>15</b>
	<b>5.1 Attitudes and views of older people</b>	<b>15</b>
	<b>5.2 Attitudes of the general public</b>	<b>15</b>
	<b>5.3 Attitudes of medical staff</b>	<b>16</b>
<b>6</b>	<b>Hospital care</b>	<b>19</b>
	<b>6.1 The older patient's experience</b>	<b>19</b>
	<b>6.2 Interface with primary care</b>	<b>22</b>
	<b>6.3 Indirect discrimination in hospital management</b>	<b>23</b>
	<b>6.4 Surgery</b>	<b>26</b>
	<b>6.5 Accident and emergency / Trauma care</b>	<b>28</b>
	<b>6.6 High Dependency and Intensive Care Units</b>	<b>30</b>
	<b>6.7 End-of-Life care / Palliative care</b>	<b>32</b>
	<b>6.8 Resuscitation</b>	<b>34</b>
	<b>6.9 Emergency readmission</b>	<b>35</b>
<b>7</b>	<b>Areas of discrimination in the treatment of particular conditions</b>	<b>36</b>
	<b>7.1 Oncology (Cancer)</b>	<b>36</b>
	<b>7.2 Cardiology</b>	<b>42</b>
	<b>7.3 Transient Ischaemic Attack and Stroke</b>	<b>47</b>
	<b>7.4 Diabetes</b>	<b>50</b>
	<b>7.5 Osteoporosis</b>	<b>50</b>
	<b>7.6 Osteoarthritis</b>	<b>51</b>
	<b>7.7 Parkinson's disease</b>	<b>52</b>
<b>8</b>	<b>Clinical trials</b>	<b>53</b>
<b>9</b>	<b>NICE guidelines and the use of QALYs</b>	<b>54</b>
<b>10</b>	<b>Education and training</b>	<b>58</b>
<b>11</b>	<b>Conclusion</b>	<b>59</b>
<b>12</b>	<b>Recommendations for further study</b>	<b>62</b>
	<b>References</b>	<b>63</b>
	<b>Appendix 1 – Methods</b>	
	<b>Appendix 2 - Bibliography</b>	

This review is one of four reviews of ageism and age discrimination in health and social care available from <http://www.cpa.org.uk/reviews>

## **Ageism and age discrimination in secondary health Care in the United Kingdom**

### **1. Context and Introduction**

#### *1.1. Context*

- 1.1.1. The Department of Health has commissioned this review of evidence of ageism and age discrimination in secondary health care in the United Kingdom in the context of the European Commission Draft Directive (July 2008) – COM (2008) 426 and the introduction in the UK parliament, in April 2009, of the Equality Bill and related secondary legislation that will outlaw age discrimination in the provision of goods and services.
- 1.1.2. The review should be seen alongside other government initiatives to reduce inequalities in health care for older people including the continuing implementation of the National Service Framework for Older People, the Dignity in Care campaign, National Dementia Strategy, Prevention Package for Older People, End-of-Life Care Strategy and the updated and refreshed Ageing Strategy due in Summer 2009. This review from the literature has also informed the 2009 review of how the NHS and local authorities can ‘tackle’ discrimination against older people, being carried out by Sir Ian Carruthers and Jan Ormondroyd. That review, reporting in October 2009 and led by the NHS and adult social care in the South West, takes into account the financial and planning framework within which work to tackle age discrimination must take place (Carruthers and Ormondroyd, 2009, Review).

#### *1.2. Introduction*

- 1.2.1. This review, from the literature, will look at possible evidence of age discrimination in the secondary health care setting in the United Kingdom. Companion reviews look at age discrimination in primary care, mental health care and social care. Primary and secondary health care are very much interlinked, with access to secondary care being, for the most part, by referral from primary care. Many health care services, for example Palliative Care, are provided at both the primary and secondary levels of health care and some of the issues raised here may be applicable at both primary and secondary level. This review, however, focuses on secondary health care and therefore excludes issues that are mainly or exclusively associated with the primary care setting.
- 1.2.2. There are many specialist areas within secondary health care. Rather than look at all areas irrespective of indications of the presence of age discrimination, this study will focus on

those areas of secondary health care where ageism and age discrimination have been either evidenced or suspected.

1.2.3. This review is a rapid semi-systematic literature based review. It is not a formal systematic review. Details of the review process can be found in appendix 1.

To facilitate recognition of the different types of evidence presented in this review, a brief and simple classification has been used. Category labels have been added to the reference citations in the body of the text to provide an at-a-glance guide.

Large survey	Sample survey of 800+ from a large population
Survey	Sample survey of 120-800 from a large population or 50%+ from a small population. We will use the generic term <i>survey</i> to include retrospective case audits.
Small survey	Sample survey of less than 120 from a large population or less than 50% of a small population
Group study	Focus group, panel or equivalent study
Study	Individual research project, observational study or analysis not carried out as a group study or survey
Opinion	Opinion of a respected authority, editorial etc.
Systematic review	Systematic review, with or without meta analysis
Review	Literature and other reviews not structured as a 'systematic review'
Policy document	Government or professional overview
Campaign document	Document to promote a particular point of view
Guide	Guide, information pack or toolkit

1.2.4. All the studies and evidence considered in this review are from within the United Kingdom, except where, for example in the case of under representation of older people in drug trials, a study may have a wider applicability than its original location.

1.2.5. A literature based review can only reflect ageism and age discrimination that has been documented in the years covered by the review and located by the reviewers. No review can claim to be totally exhaustive so any ageism and age discrimination identified in this review is likely to be indicative of a wider problem.

1.2.6. This review does not provide an economic or cost-benefit analysis of the removal of age discrimination in secondary health services but does provide a starting point for such an analysis.

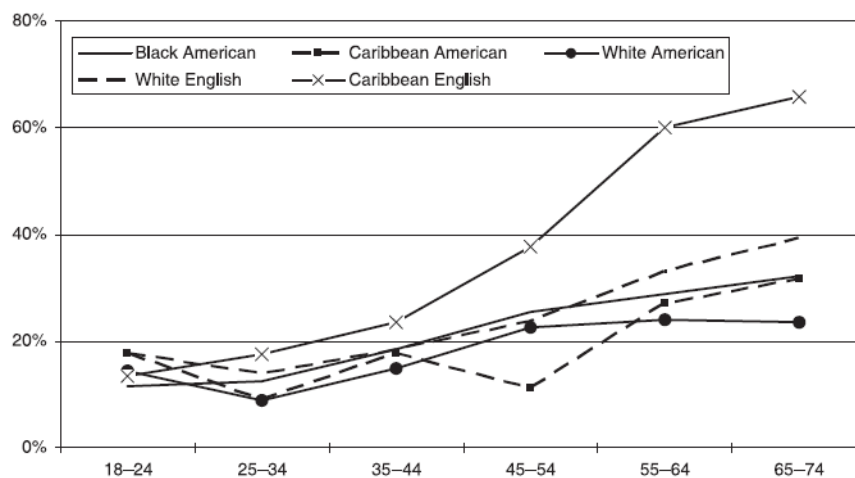
1.2.7. Mental health services are outside the remit of this report and are covered by a separate review. (Centre for Policy on Ageing, 2009, Review) Mental health services, organised as separate services for older and younger people, are recognised by many as an example of systemic or institutional age discrimination. According to the Royal College of Psychiatrists ‘... with mental health care ... older people do not have access to the range of services available to younger adults despite having the same, and often greater, need.’ (Anderson; Royal College of Psychiatrists Faculty of Old Age Psychiatry, 2007, Policy document)

A 2006 joint report from the Healthcare Commission, Audit Commission and Commission for Social Care Inspection found that older people reported a noticeable difference in their experience of accessing mental health services as they reached and passed the age of 65, that out of hours services for psychiatric advice and crisis management are much less developed than for working age adults and older people with dementia experience unacceptably long waits for specialist care. (Healthcare Commission et al, 2006, Review)

1.2.8. This report does not look at issues of multiple discrimination, for example in the investigation and treatment of heart disease in older women who may experience discrimination both as a result of their age and their gender. (Dudley et al, 2002)

Nor does it look at age discrimination in relation to the additional difficulties in access to services experienced by older people living in rural areas, those resulting from regional differences in ageist attitudes and discrimination, or the additional care needs of older black and minority ethnic groups who may experience higher than usual levels of poor health.

Self-reported fair or bad/poor health by ethnicity and age (Nazroo, Jackson et al, 2007)



- 1.2.9. Ageism and age discrimination in the National Health Service is very likely to reflect ageism and age discrimination in society at large. It is however beyond the scope of this report to examine wider issues of ageism and age discrimination in United Kingdom society as a whole.
- 1.2.10. “Whenever a clinical stone is turned over, ageism is revealed.” (Young, 2006, Opinion) This may be an overly pessimistic view of the state of health care in the United Kingdom but there is evidence of direct and indirect age discrimination in the provision of some services, although in many cases the evidence is not clear-cut. Different patterns of treatment for patients of different ages does not, in itself, necessarily imply discrimination on the basis of age. Variations in the treatment of patients of different ages may be confounded by the presence of more than one condition (co-morbidity), frailty, treatment with more than one type of medication (polypharmacy) and the efficacy of a particular treatment at different ages.
- 1.2.11. Lower investigation and treatment rates for specific conditions in older people may arise for a number of reasons including different prevalence of the underlying condition in different age groups. In general, however, the prevalence of most health problems increases with increasing age hence older people may be expected to receive more care. (Wood and Bain, 2001, Large survey)
- 1.2.12. The National Service Framework (NSF) for Older People (Department of Health, 2001, Policy document) affirmed that ‘NHS services will be provided, regardless of age, on the basis of clinical need alone. Social care services will not use age in their eligibility criteria or policies, to restrict access to available services.’
- 1.2.13. The NSF for older people, rather than labelling people by chronological age, usefully distinguished older people who are
- “Entering old age: These are people who have completed their career in paid employment and/or child rearing. This is a socially constructed definition of old age, which, according to different interpretations, includes people as young as 50, or from the official retirement ages of 60 for women and 65 for men. These people are active and independent and many remain so into late old age.”
  - “Transient phase: This group of older people are in transition between healthy, active life and frailty. This transition often occurs in the seventh or eight decades but can occur at any stage of later life.”
  - Frail older people: These people are often vulnerable as a result of health problems such as stroke or dementia, social care needs or a combination of both.”



(Department of Health, 2001, Policy document)

- 1.2.14. Health care that is appropriate to the needs of the individual patient, but is blind to his or her chronological age, cannot be considered age discriminatory even if it results in different average treatment patterns for patients in different age groups.

## 2. **Ageism and Age Discrimination**

- 2.1. The terms *ageism* and *age discrimination* are often used interchangeably. Although they are different in nature, the difference is not always observed.
- 2.2. *Ageism*, a term first used by Robert Butler in 1969, is an attitude of mind which may lead to age discrimination. *Age discrimination*, on the other hand, is a set of actions with outcomes that may be measured, assessed and compared.
- 2.3. ‘...ageism is used to describe stereotypes and prejudices held about older people on the grounds of their age. Age discrimination is used to describe behaviour where older people are treated unequally (directly or indirectly) on grounds of their age.’ (Ray, Sharp and Abrams, 2006, Study)
- 2.4. ‘Ageism is a set of beliefs ... relating to the ageing process. Ageism generates and reinforces a fear and denigration of the ageing process, and stereotyping presumptions regarding competence and the need for protection. In particular, ageism legitimates the use of chronological age to mark out classes of people who are systematically denied resources and opportunities that others enjoy, and who suffer the consequences of such denigration, ranging from well-meaning patronage to unambiguous vilification’. (Bytheway , 1995 - referencing Bytheway and Johnson, 1990, Study)
- 2.5. Ageism is broader than age discrimination. It refers to deeply rooted negative beliefs about older people and the ageing process, which may then give rise to age discrimination. (McGlone and Fitzgerald, 2005, Study)

- 2.6. Some writers consider age discrimination to be a facet of ageism. (Ray, Sharp and Abrams, 2006, Study) Ageism may be seen as having an affective component (feelings), a cognitive component (beliefs and stereotypes) and a behavioural component (discrimination). (Nelson, 2002; Palmore, Branch and Harris, 2005) Ageism may be positive or negative. (Reed et al, 2006, Study)
- 2.7. An alternative use of the term *ageism* is to describe any decision making on the basis of age. Tsuchiya, examining public attitudes to discrimination on the basis of age in health service decision making, identifies
- Health maximisation (utilitarian) ageism – in which health units, eg quality adjusted life years (QALYs), are given equal value. Other things being equal, younger people, with greater life expectancy, will benefit from decisions made on this basis.
  - Productivity ageism – gives priority to young adults because they are socially and economically more productive. Health gains at different ages are weighted accordingly.
  - Fair innings ageism – in which an individual’s expected remaining healthy life years are compared with an average and given a higher relative weighting if they fall below. Other things being equal, younger people will again benefit from decisions made on this basis. (Tsuchiya, Dolan and Shaw, 2003, Study)
- 2.8. Some authors distinguish ageism from age-differentiated behaviour, considering ageism to be based on stereotypes and prejudice whereas age-differentiated behaviour is based on a well-developed understanding of age differences. “Ageist behaviour grows out of stereotypes, prejudices and stigmatization. Age-differentiated behaviours are, however, an appropriate function of the age of the target person, based on an understanding of development and thoughtful recognition of age differences” (Hagestad and Uhlenberg, 2005, Study)
- 2.9. *Age discrimination* is an unjustifiable difference in treatment based solely on age. Age discrimination may be *direct* or *indirect* in form.
- 2.10. *Direct age discrimination* occurs when a direct difference in treatment based on age cannot be justified. A direct difference in treatment is a situation in which a person is, was or could be treated in a less favourable manner than another person in a comparable situation based

on his/her age.

- 2.11. *Indirect discrimination* occurs when a seemingly neutral provision, measure or practice has harmful repercussions on a person. (Belgium - Discrimination Act of February 25, 2003; Ireland - Equal Status Act 2000-2004) For example an older person who may need longer to recover from hospital procedures, may be disadvantaged by an early hospital discharge policy universally applied.
- 2.12. Direct age discrimination will occur if people with comparable needs are treated differently, purely on the basis of their age. Indirect age discrimination will occur if people from different age groups, with different needs, are treated in the same way, with the result that the needs of the older person are not fully met.
- 2.13. The provision of a health service purely on the basis of need reflects the health equity concepts of horizontal equity (the equal treatment of equals) and vertical equity (the unequal, but fair, treatment of unequals) (Mooney and Jan, 1997, Study)

### *Summary*

Ageism is an attitude of mind that gives rise to age discrimination, a set of actions that may advantage (positive discrimination) or disadvantage (negative discrimination) an older person. Age discrimination may be *direct* when an older person is treated differently solely because on their age, or *indirect* when an older person is disproportionately disadvantaged by a policy or set of actions equally and universally applied.

## 3. **Measuring ageism and age discrimination**

- 3.1. Ageism, as an attitude of mind, can be measured using psychometric tests, most notably the Aging Semantic Differential (Rosencranz and McNevin, 1969, Study), the Fraboni Scale of Ageism (Fraboni, Saltstone and Hughes, 1990, Study) and Kogan's Old People Scale (Kogan, 1961, Study). Measures of this type generally find that ageism gets less as people get older and that men are more ageist than women. (Rupp, Vodanovich and Credé, 2005, Study)
- 3.2. Age discrimination, being a set of actions with associated outcomes, is, in principle, easier to observe and measure. In practice age discrimination cannot be measured directly because

there are no agreed ideal levels of investigation, prescribing and treatment for patients in a particular age group, with a particular condition living in a particular locality.

- 3.3. The Department of Health in England has developed benchmarking tools to measure and monitor age discrimination in areas such as social care, acute hospital and primary care. ' The benchmarking tool contains data on the number of procedures by age, and on the population of the same age. This enables the generation of age-specific rates of service provision. If there were a simple, generally agreed, appropriate rate for each procedure at each age then it would be sufficient to examine procedure rates for older people, and consider whether they met the agreed appropriate rate. In practice, there is no such agreed rate. ... The Tool works by comparing across PCTs and SHAs the ratio of the procedure rates for older adults to the procedure rate for younger adults (the ratio of the rates – the rate for older adults divided by the rate for younger adults). The Tool also looks at the ratio of the rate for people in advanced old age to the rate for people in earlier old age.' (Department of Health, 2002, Guide)

#### *Summary*

Ageism, an attitude of mind, can be measured by psychometric tests. Age differentiated patterns of service provision can be observed and their measurement is important to help identify where difference are beneficial (positive action), neutral or represent unfavourable treatment and may be discriminatory. Age discrimination in health care cannot be measured directly because there is no agreed standard or yardstick against which to measure treatment levels or service provision.

#### **4. Forms and levels of discrimination**

- 4.1. Given that budgets are not unlimited, covert or overt health care rationing has always been a feature of the National Health Service.
- 4.2. Ageism or age discrimination that follows directly from the policies, structures and systems of the health service is said to be Institutional. Institutional age discrimination may occur in policy at the political, national or overall level (Societal) or at the level of individual institutions, SHAs, PCTs or health units (Systemic) (Levenson, 2003, Guide; Dey and Fraser,

2000, Study). Institutional or societal /systemic age discrimination includes the imposition of explicit age limits for the provision of services or access to facilities. If the use, by the National Institute for Health and Clinical Excellence (NICE), of Quality Adjusted Life Years (QALYs) in the assessment of the relative cost-effectiveness of health service treatments is shown to be inherently age discriminatory (Taylor, 2007, Study) then this would be an example of institutional age discrimination at the societal level (Dey and Fraser, 2000, Study). Since 2001, when the government declared its intention to 'root out' age discrimination in the health service (Department of Health, 2001, Policy document), examples of institutional age discrimination are likely to have become less common, although as recently as January 2008, following press publicity, North Yorkshire and York Primary Care Trust agreed to a catheter ablation to treat atrial fibrillation in a 61 year old grandmother, Dorothy Simpson, having initially refused the treatment, partly on the grounds of her age. (Duffin, 2008, Opinion)

4.3. Much more difficult to identify and 'root out' is age discrimination at the individual, clinical, level. Age discrimination at this level is much more likely to be covert and may even be subconscious.

'Precisely because clinical judgment is meant to involve a holistic assessment of individual needs, it is no easy matter to assess the way age is used at the clinical level. If clinical decisions involve age-based rationing they are likely to be covert. Nevertheless research suggests that covert discrimination by age is a pervasive feature of clinical practice. ...Those concerned to reduce rationing by age cannot take refuge in decision making at the clinical level , where discrimination seems rife but hard to challenge' (Dey and Fraser, 2000, Study)

4.4. Current examples of explicit institutional or systemic age discrimination, written into secondary care policy in the NHS are likely to be rare.

Following the publication of the National Service Framework for Older People in 2001, the Department of Health, through local NHS trusts, carried out, in 2001-2, an audit of policies across the NHS to identify which policies were explicitly ageist. An interim report in 2002, identified the following areas of explicit negative discrimination in policy in secondary care.

- Resuscitation
- Hospital admission policies
- Access to day surgery
- Gastroenterology screening
- Osteoporosis screening
- Adverse clinical incident reporting
- Transplant policy
- Prescribing
- Colorectal cancer screening
- Anaesthesia guidelines

- Older people – specialist teams
- Breast screening
- Cervical cancer screening
- Coronary heart disease clinical guidelines
- Neurology
- Immediate stroke care

(Department of Health, 2002, Policy document)

- 4.5. Excluding mental health services, the most obvious continuance of the use of age limits in secondary care policy is in NHS screening programmes (see section 6.2.1)
- 4.6. A 2006 report from the Healthcare Commission, Audit Commission and Commission for Social Care Inspection, assessing progress since publication of the National Service Framework for Older People in 2001, noted that “Assessing whether services are provided fairly between age groups is not straightforward, not least because many organisations cannot provide detailed data on who uses their services. In addition, for many health procedures used chiefly by older people, the comparison with younger age groups is unlikely to be helpful”.
- “Access to cardiac procedures and hip and knee replacements by people over 65 have improved since the NSF was published. Information from the Department of Health’s hospital episode statistics showed that between 1999 and 2004 the number of hip replacements carried out on people aged between 65 and 74 years increased by 39% and for people 75 years and older increased by 22%. The number of knee replacements carried out on people aged between 65 and 74 increased by 58% and for people 75 years and older it increased by 63%. There has been a general increase in hip and knee replacements for the whole population as surgical procedures have increased to achieve the waiting time targets for admission to hospital. However, despite this there was a higher increase in access to hip and knee replacements for older people. Social deprivation negatively affects the access to treatment for older people. Nationally, there were fewer admissions of older people to hospital for both hip and knee replacements in poorer areas.”
- “...access to procedures relating to heart failure has increased for older people. Elective (voluntary) admissions for people aged between 65 and 74 years have had a 54% increase, while there has been an increase of 129% for people who are 75 years and older. This indicates that, despite the general increase in the admissions of people of all ages to hospital for elective procedures, access by older people to these procedures, had also increased. This may be due to a revision of policies on age discrimination but this explanation is not conclusive, as the demand by older people for these procedures has risen.” (Healthcare Commission et al, 2006, Review)

### *Summary*

Changes and increased awareness following the publication of the National Service Framework for Older people in 2001, mean that explicit policy based age discrimination is likely to be rare. Age discrimination, when it occurs is likely to be indirect, from under provision of services and facilities required by older patients, as a result of commissioning decisions, or as a result of conscious or subconscious ageist attitudes on the part of medical staff.

## **5. Ageist attitudes in healthcare**

### *5.1. Attitudes and views of older people*

- 5.1.1. There is evidence that some older people believe that health care rationing on the basis of age is acceptable in certain circumstances.

An ONS Omnibus survey of 339 people age 65+ carried out in 2000 with a follow up survey of 242 people aged 65+ in 2001 revealed that 37% of respondents, hypothetically about to receive cardiac surgery, would be willing to swap places with a younger person (aged 45) 6 months behind then on the waiting list and 34% would be willing to swap places with someone 12 months behind. Fifty eight percent and 62% respectively felt it was not right to do so. (Bowling, Mariotto and Evans, 2002, Survey)

The issue though is not whether an older person would be self-sacrificing in these circumstances but whether it is right for society as a whole to burden them with such a choice.

- 5.1.2. Acting on behalf of Help the Aged, ICM interviewed a random sample of 1,321 adults aged 60+ from its telephone panel in August 2007. It found that just over half of older people (51 per cent) agree health professionals dismiss symptoms as just old age, while a similar proportion (53 per cent) believe there is little dignity for older people in hospital or care homes. (Help the Aged, 2007, Large survey)

### *5.2. Attitudes of the general public*

- 5.2.1. In 2004 the National Institute for Health and Clinical Excellence (NICE) asked its citizens panel to consider whether age should be taken into account when NICE is making decisions about how treatments should be used in the NHS. The panel said "The age of a patient can and should be used to inform the clinician of the most appropriate treatment so that each

person can be treated in the most beneficial way. Being more or less generous to a patient simply on the basis of their age is as unacceptable as is the allocation of treatment simply on the basis of their social role.”

5.2.2. A majority of the panel felt that it was valid to treat age groups more generously on the basis of increased risk or increased likelihood to benefit from treatment but not on the basis of the perceived social role of that age group. The panel did not discuss whether the QALY is an appropriate way for NICE to differentiate treatments. (Citizens Council - NICE, 2004, Group study)

5.2.3. An Omnibus poll of the general public, taken to supplement the panel’s findings found the public divided on whether age should be a factor in decision making.

How important to you think age of the patient should be when deciding on what treatment can be given on the NHS?

10 (very) - 8	7 - 4	3 – 1 (not)
28%	29%	40%

5.2.4. A 2004 study of ageism in Ireland found that, for Northern Ireland, middle aged people tend to be the most likely to perceive ageism by medical staff towards older people. (Evason, Dowds and Devine, 2004, Large survey)

Do you think that health and social care workers treat older people differently with regard to... (Percentage saying ‘yes’)

Question \ Age	18-24	25-44	45-49	50-59	60-64	65-74	75+	All
...their attitudes to them?	35	44	52	45	48	40	28	42
...the treatment of their illnesses?	39	42	52	47	44	37	24	42
... when placing them on waiting lists for tests and operations?	35	46	54	52	54	45	37	46

n=18,000

Northern Ireland Life and Times Survey, 2003

### 5.3. Attitudes of medical staff

5.3.1. A 2003 focus group based study, of the experiences of NHS staff in the clinical setting, found some evidence of the observation, by NHS staff, of ageist attitudes and activity by other staff.

The study noted however that ageist activity and outcomes and age discrimination in treatment, were less common than ageist behaviour with the older person. The majority had observed staff being patronising, over familiar, speaking over a person (speaking about



them but not including them in the conversation) and not keeping them fully informed of their condition, treatment or care, 'sometimes or often'. (Billings, 2003, Group study)

Percentage of respondents observing ageist activity

Statement	Sometimes or often	Rarely, sometimes or often
Not being referred to specialist services locally or outside the area when this is needed	42	79
Older people having a low priority with respect to medical attention, referrals, surgery or investigation	37	84
Not being referred for investigations such as blood test, x-rays or scans	34	71
Having difficulty getting some services to see a person who is over 65	29	66
Not having surgery despite being fit enough	21	63
Not having cardiac investigations or treatments such as pacemakers because of age	18	53
Being excluded from respite care because you are over 65, even if you had it before	16	45
Not being offered the chance to take part in research, such as entering a clinical trial	16	34
Having difficulty getting on to a GP list	13	47
Having problems getting a recuperative care bed if you are over 65	13	47

n=57

(Billings, 2003)

- 5.3.2. A 2003 survey of all staff in Wirral Hospital NHS trust found that doctors were the medical staff least likely to feel that older people should have equal access to health care when compared with younger people.

Should older people have equal access to healthcare: percentage by designation

Designation	Yes	No	No reply
Trained nurse	94	5	1
Nurse auxiliary HCA	97	3	1
Doctor	84	13	3
Administration and clerical	97	3	0
Ancillary	97	0	3
Manager	92	6	3
AHP	94	4	2
Other	97	2	1
Not identified	91	5	5

n=1,343

(Davey and Ross, 2003)

The reasoning behind the figures is illustrated by statements from doctors in the survey.

- *"Yes but not to the same care. This is crucial, care must be effective, available and appropriate. The question as phrased is naive and meaningless"*
- *"No a judgment has to be made about quality and expectation of life. Therefore older people should not be offered equal access. Fair access certainly"*
- *"I think it is a mistake to approach care for the elderly in this way. False directions are created with these questions. There is a huge debate necessary about when high tech medical and surgical interventions are most appropriate course of action and it is obvious that life expectancy is part of the equation"*

5.3.3. GPs, cardiologists and care of the elderly specialists took part in a study of their response to hypothetical cases of individual patients presenting with symptoms of a heart or related problem. Those most influenced by age gave the following reasoning

- Age a direct influence
  - "Age does come into it so only the oldest old are excluded. We would manage those ourselves"*
  - "If someone's had two bypasses, they're 95, they're completely asymptomatic – sure they've got heart disease but I'm not going to do anything."*
  - "If they are in their 90s with chest pain and angina I might be less likely to refer"*
  - "Age. I would be less likely to prescribe for an older patient."*
  - "I agree with the policies, like try to avoid angiography over age of 75 and when the policy came in we thought about 1 in 3 would get angiography but it was 1 in 2."*
  - "No age related policies here...one occasionally comes across unwritten practice which may be construed as ageist."*
- Age as an indirect influence (co-morbidity, patients' demands, quality of life)
  - "Age has a definite influence. I'd be more likely to refer a 65 than a 95 year old because they probably wouldn't survive surgery at that age."*
  - "...once you start hitting 75, 80, 85 mark you then start getting put off because you worry about complications"*
  - "They wouldn't want an angiogram if they were over 70."*
  - "I like to think I would treat the individual. I think generally you have to try and identify from an individual what is in their best interests. I don't think bypass surgery in an 87 year old is in their interests."*
  - "Not always young people, but people that you feel that the severity of their chest*

*pains is making their quality of life worse. Whereas if someone is elderly and sedentary then sadly you have to sometimes forget these people.”*

(Bowling et al, 2006, Group study)

- 5.3.4. A 2008 survey of 201 British Geriatrics Society members, carried out on behalf of Help the Aged, found that over one half (55%) would be worried about how the NHS would treat them in old age and nearly one half (47%) think that the NHS is institutionally ageist. Two thirds (66%) think older people are less likely to have their symptoms fully investigated and 72% said older people were less likely to be considered and referred on for essential treatments. (Help the Aged, 2009, Survey) Ironically a 2006 study of cardiologists, GPs and elder care specialists found that care of the elderly specialists are much less likely than cardiologists to refer a patient for an angiogram or revascularisation and less likely than a GP to refer a patient to a cardiologist. (Bowling et al, 2006, Group study).
- 5.3.5. Secondary analysis of the 2004 NHS inpatient survey reveals that the oldest (and youngest) hospital patients are more likely than those in middle age to feel that doctors and nurses talk about them ‘as if they were not there’. (see section 6.1.5 below)

### *Summary*

There is evidence of the presence of ageist attitudes among medical staff in secondary health care with indications that doctors may be more ageist than other staff. There is, however, no evidence within the UK of the reasons for these attitudes, whether they reflect wider societal views or are peculiar to the medical profession.

## **6. Hospital Care**

### *6.1. The older patient experience*

- 6.1.1. “We found that some older people experienced poor standards of care on general hospital wards, including poorly managed discharges from hospitals, being repeatedly moved from one ward to another for non-clinical reasons, being cared for in mixed-sex bays or wards and having their meals taken away before they could eat them due to a lack of support at meal times. All users of health and social care services need to be treated with dignity and respect. However, some older people can be particularly vulnerable and it is essential that extra attention is given to making sure that givers of care treat them with dignity at all

times and in all situations. To fail to do this is an infringement of their human rights.”

(Healthcare Commission et al, 2006, Review)

- 6.1.2. The large scale NHS inpatient surveys, carried out on behalf of the Care Quality Commission (CQC) by the Picker Institute, have as their primary focus a comparison of the performance of NHS trusts and do not, in general, in their published results, provide a breakdown of patient experience for patients of different ages. Data from the 2004 survey has, however, been lodged with the UK Data Archive (UKDA) and is available for secondary analysis. The target sample of 850 consecutive discharged patients aged 16+ from each of 169 hospital trusts in England, with a typical response rate of 60%, generates a sample of around 88,000 valid patient responses that can be used to examine variations in experience by age and by region. The figures quoted in this report are from the raw data and have not been weighted to take into account either variations in response rate or the variation in size of the NHS trusts sampled.
- 6.1.3. Although the youngest patients, aged 16 to 35, are those who are least satisfied overall with their hospital experience, the oldest patients aged 81 and above are less likely than those in middle age and early old age to describe their care as ‘excellent’.

Overall, how would you rate the care you received?

		Age Group					Total
		16-35	36-50	51-65	66-80	81+	
Overall, how would you rate the care you received?	Excellent	30.6%	37.5%	44.8%	48.7%	40.3%	42.8%
	Very good	34.9%	34.3%	34.7%	35.5%	38.6%	35.5%
	Good	20.4%	16.9%	13.6%	11.0%	14.3%	14.1%
	Fair	9.5%	8.0%	5.1%	3.6%	5.2%	5.5%
	Poor	4.6%	3.3%	1.8%	1.2%	1.6%	2.1%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=85,474

(2004 NHS Inpatient survey, UKDA)

- 6.1.4. This comparison of ‘satisfaction with care received’ for patients of different ages should be viewed in the context that older patients are less likely to be critical of any particular hospital experience. Taking cleanliness as an indicator and assuming that the actual cleanliness of wards and toilets will average out much the same for all patients, older patients were much more likely than younger patients to perceive wards and toilets to be ‘very clean’.

In your opinion, how clean was the hospital room or ward that you were in?

		Age Group					Total
		16-35	36-50	51-65	66-80	81+	
In your opinion, how clean was the hospital room or ward that you were in?	Very clean	49.3%	49.3%	50.9%	56.8%	61.2%	53.9%
	Fairly clean	41.4%	40.8%	39.2%	36.3%	32.9%	37.8%
	Not very clean	6.9%	7.4%	7.8%	5.7%	4.7%	6.5%
	Not at all clean	2.4%	2.5%	2.1%	1.3%	1.2%	1.8%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=86,766

(2004 NHS Inpatient survey, UKDA)

How clean were the toilets and bathrooms that you used in hospital?

		Age Group					Total
		16-35	36-50	51-65	66-80	81+	
How clean were the toilets and bathrooms that you used in hospital?	Very clean	40.4%	40.9%	44.6%	51.8%	55.3%	47.5%
	Fairly clean	42.4%	41.7%	39.8%	36.2%	33.2%	38.3%
	Not very	11.7%	11.4%	10.3%	7.7%	5.5%	9.1%
	Not at all	4.2%	4.8%	3.9%	2.2%	2.0%	3.2%
	I did not use a toilet or bathroom	1.2%	1.2%	1.3%	2.1%	3.9%	1.9%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=86,607

(2004 NHS Inpatient survey, UKDA)

6.1.5. Being treated with dignity and respect by medical staff is a key feature of a satisfactory hospital stay for older people. Secondary analysis of the 2004 NHS inpatient survey data reveals that the oldest patients, aged 81 and over, are those most likely to feel talked over 'as if they weren't there' by medical staff sometimes or often. Doctors are worse offenders than nurses in this respect.

Did doctors talk in front of you as if you weren't there?

		Age Group					Total
		16-35	36-50	51-65	66-80	81+	
Did doctors talk in front of you as if you weren't there?	Yes, often	7.5%	5.9%	4.7%	5.1%	7.0%	5.7%
	Yes, sometimes	23.5%	20.1%	19.6%	22.3%	27.5%	22.1%
	No	69.0%	73.9%	75.6%	72.5%	65.5%	72.2%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=86,093

(2004 NHS Inpatient survey, UKDA)

Did nurses talk in front of you as if you weren't there?

		Age Group					Total
		16-35	36-50	51-65	66-80	81+	
Did nurses talk in front of you as if you weren't there?	Yes, often	5.8%	4.5%	3.4%	3.7%	5.2%	4.2%
	Yes, sometimes	17.7%	14.8%	13.6%	14.9%	20.5%	15.6%
	No	76.5%	80.7%	83.0%	81.5%	74.4%	80.2%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=86,487

(2004 NHS Inpatient survey, UKDA)

### Summary

Patient satisfaction, based as it is on individual personal experience and expectations, is not an objective neutral yardstick that can be used to positively identify age discrimination. However, taking into account the evidence that the oldest patients are those least likely to be critical of any particular hospital situation, it is particularly worrying that these same patients are less likely than those in middle age and early old age to describe their hospital care as 'excellent' and most likely to feel talked over 'as though they were not there' by medical staff.

## 6.2. Interface with primary care

[See also *Ageism and age discrimination in primary and community health care in the United Kingdom* (Centre for Policy on Ageing, 2009, Review)]

### 6.2.1. Screening programmes

One of the most explicit forms of age discrimination in healthcare in the NHS is the age limits applied to screening programs by invitation. While some have a sound evidence base and for others there is no available evidence, some are clearly discriminatory and are not justifiable by disease prevalence or any other clinical indicator. As discussed later under the treatment of cancer (Section 7.1.9), upper age limits currently exist of 69 for breast and bowel screening and 64 for cervical cancer screening by routine invitation. The soon to be introduced vascular screening programme currently has an upper age limit of 74 years, despite vascular diseases being highly prevalent above that age. "...the vascular checks programme has a cut-off at the age of 74, and most strokes occur in people over 75. To prevent stroke, it is important to ensure that hypertension is controlled in this age group." (Xavier, 2009)

### 6.2.2. Late diagnosis and referral / the gate-keeper role

Early diagnosis and referral from primary to specialist secondary care is key in the treatment of certain conditions. Some GPs and other primary care agencies, however, see

it as part of their role to act as a gatekeeper to prevent unnecessary use of secondary care services. For example Somerset GP Acute Care Services state their primary aim as being to “Gate keep emergency admissions, avoiding those who do not need to be admitted coming into hospital”. Early referral and the gate-keeping role seem to be opposing forces. Gate-keeping, coupled with ageist attitudes, may disadvantage older people but there is no firm evidence to indicate that this is happening.

A Kings Fund survey of health managers, looking at age discrimination in healthcare found that managers rarely mentioned the gate-keeping role. (Roberts and Seymour, 2002, Survey) There is however evidence that late referral is associated with patient age. For example in referral for dialysis following chronic renal failure to Bristol and Portsmouth renal units, avoidable late referrals were, on average, 5 years older than early referrals. (Roderick, Jones, Tomson and Mason, 2002, Survey)

### *Summary*

At the interface with primary care, evidence of age discrimination is mixed. Some screening programmes provide one of the clearest remaining examples of institutional and explicit age discrimination and there is some clear evidence of the later referral of older patients but it is not clear that this late referral results from ageist attitudes or a gatekeeper role adopted by GPs and other primary care staff.

## 6.3. *Indirect discrimination in hospital management*

### 6.3.1. Older people, particularly frail older people, in hospital may have additional special needs.

If there is not adequate provision and these needs are not properly met this may be viewed as a form of indirect discrimination against the older person.

### 6.3.2. Ward management, privacy and single sex wards

‘The 2006 NHS inpatient survey shows that only 76% of respondents were always given enough privacy when discussing their condition and treatment, 18% were given this facility sometimes and 5.5% did not get enough privacy in this situation.’ ‘Being in single sex accommodation and having access to single sex bathing, washing and toilet facilities is one of the most important considerations for older patients in maintaining their privacy and dignity.’ ‘According to the 2006 survey of NHS inpatients just under 23% of older respondents reported they had shared a room or bay with patients from the opposite sex.’ (Healthcare Commission, 2007b, Large survey)

While it might generally be assumed that older patients would be those least happy with mixed sex wards, (Tadd, 2004, Group study; Healthcare Commission, 2007b, Review), secondary analysis of the 2004 NHS inpatient survey data reveals, surprisingly, that older patients are more likely than younger patients to be placed in a mixed sex environment.

During your stay in hospital, did you ever share a room or bay with patients of the opposite sex

		Age Group					Total
		16-35	36-50	51-65	66-80	81+	
During your stay in hospital, did you ever share a room or bay with patients of the opposite sex?	Yes	17.0%	17.8%	21.8%	23.4%	24.0%	21.5%
	No	83.0%	82.2%	78.2%	76.6%	76.0%	78.5%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=86,212

(2004 NHS Inpatient survey, UKDA)

### 6.3.3. Confusion and the older patient

‘Mild or acute confusion is also quite common for older people because of their medication. This must be recognised and appropriate care provided. Careful planning and review of care is even more vital for vulnerable groups of patients such as those with dementia and confusion. This has been a prime concern for older people who report that care is not always adequate...’ (Healthcare Commission, 2007b, Review)

### 6.3.4. Nutrition

‘Of complaints about NHS services received by the Healthcare Commission, 25% concerned poor nutrition in hospitals...’ ‘Anecdotal evidence from older people confirms this evidence and adds the behaviour of staff as another factor explaining why older people do not have a satisfactory experience at mealtimes.’ (Healthcare Commission, 2007b, Review)

Inpatient survey evidence indicates however that, while all patients rate hospital food badly compared with other aspects of care, older patients’ tendency to be less critical than younger patients is also true for hospital food.



How would you rate the hospital food?

	Age Group					Total
	16-35	36-50	51-65	66-80	81+	
How would you rate the hospital food?						
Very good	9.6%	13.1%	16.5%	21.0%	24.3%	17.9%
Good	28.2%	30.3%	33.6%	37.9%	39.6%	34.8%
Fair	33.0%	32.2%	30.8%	27.5%	25.4%	29.4%
Poor	20.9%	18.9%	15.3%	11.0%	8.7%	14.1%
I did not have any hospital food	8.4%	5.5%	3.8%	2.5%	1.9%	3.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=86,550

(2004 NHS Inpatient survey, UKDA)

### 6.3.5. Assessment and discharge

'The assistance received by older people upon discharge from hospital elderly care units often depends upon who they see and where they live... [a] review of 456 patients in three hospital elderly care units found that virtually all patients were assessed, and over 90 per cent received nursing or social care upon discharge from hospital. These were vulnerable older people aged 75 years and over. Most were widows who lived alone, had some physical difficulties and also multiple medical conditions. But the researchers cautioned that these results cannot be generalised to all hospitals, as medicine for the elderly wards are more likely to follow 'best practice' in multidisciplinary assessment than other hospital wards. ...Nearly 90 per cent of social workers (in the 54 hospital elderly care units) said that care assessment had improved in recent years.' (Healy, Thomas, Seargeant and Victor, 2000, Survey)

Older patients, aged 81 and over, are much less likely than younger patients to feel they have been given adequate information about what to do if they are worried about their condition after leaving hospital.

Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital

	Age Group					Total
	16-35	36-50	51-65	66-80	81+	
Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?						
Yes	67.2%	70.9%	75.5%	72.4%	58.6%	70.5%
No	22.7%	22.0%	18.5%	20.0%	27.1%	21.2%
Don't know - Can't remember	10.1%	7.1%	6.0%	7.5%	14.3%	8.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

n=83,904

(2004 NHS Inpatient survey, UKDA)

Problems with discharge procedures for older patients are reflected in the high and increasing rates of emergency readmission for older people within 28 days of hospital discharge (see section 6.9 ). Interventions provided both in the hospital and at home are the most effective in reducing readmission rates (Parker et al, 2002, Systematic review).

### *Summary*

There is a body of anecdotal evidence, supported in part by inpatient surveys, that older patients are particularly affected by hospital management issues such as privacy, continence management, the availability of single sex accommodation and the provision and serving of adequate and nutritional food.

## 6.4. *Surgery*

- 6.4.1. As we will see later in section 7, older patients are less likely than younger patients to be referred for surgical interventions for cancer, heart disease and stroke. This may, at least in part, be a function of perceptions of how the older patient will cope with a surgical procedure.
- 6.4.2. Major elective [*non urgent*] cardiac, vascular, oncological and orthopaedic surgery can be performed on patients over 75 years old with good outcomes and adverse event rates similar to younger patients. For carotid endarterectomy “...the contribution of age to operative mortality is less than that of gender – the risks for older people over 75 are lower than those for women as a group.” (Preston et al, 2008, Study)
- 6.4.3. Unlike elective operations, emergency surgery in older people carries disproportionately high risk, as patients tend to present later, are often harder to diagnose and have poorer functional reserve. (Preston et al, 2008, Study)
- 6.4.4. A social view of older people recognises diversity and that older people are just older ‘people’.  
From a medical point of view the reverse is true. Older people experience physiological change which must be recognised in treatment to meet need appropriately and avoid indirect discrimination.

#### 6.4.5. Age related changes in human physiology

System	Age related changes	Effect
Cardiovascular	Heart and vessels stiffen Left ventricular hypertrophy Loss of responsiveness to catecholamines	Diastolic dysfunction Cardiac output ↓ by 1% per year from age 30 Cardiac output ↑ by enlarging end diastolic volume Blunted tachycardia response
Respiratory	Loss of elasticity Muscle atrophy Increased chest wall stiffness Impaired gas exchange Reduced response to hypercapnia and hypoxia	Loss of 50% 'breathing capacity' by age 70 ↓ resting pO <sub>2</sub> Closing volume* ↑ towards maximal chest expansion, particularly in supine position
Renal	Reduced renal blood flow Lower glomerular filtration rate Impaired tubular function Asymptomatic urinary tract infection	↓ glomerular filtration rate by 1ml min <sup>-1</sup> per year Impaired salt and water homeostasis makes fluid management difficult ↑ sensitivity to pharmacological insults Drugs and metabolites accumulate Risk of endoprosthesis infection
Locomotor	Reduced muscle bulk Osteoporosis Ligament laxity Arthritis	Risk of fractures, dislocation and exacerbation or arthritis when moving anaesthetised patient
Immune	Solid organ atrophy ↓ T,B-cell and macrophage function	Blunted response to infection (lack of fever and leukocytosis)
Liver	Impaired oxidative function with normal glucuronidation	↓ metabolism of some drugs
Gastrointestinal	↓ gut motility	Gastro-oesophageal reflux Constipation
Neurological	Reduction in neuronal size and connectivity Neuronal loss, including spine and autonomic nervous system	Grey and white matter loss Impaired processing of information Cognitive impairment Reduced homeostatic autonomic responses
Sensory	Presbycusis Presbyopia Cataract Reduced sensory acuity	Deafness 35% Blindness 30% Impaired balance Pressure sores
Skin	Atrophy, loss of collagen	Bruising Tears, especially with adhesive dressings Pressure sores
*Thoracic volume at which small airways close		

(Preston et al, 2008, Study)

6.4.6. Close attention to handling, temperature and fluid management can reduce the risks of surgery in older people. Older people are also at increased risk of postoperative cognitive dysfunction (POCD) and isolation in a dim room following surgery is particularly hazardous. (Preston et al, 2008, Study)

### Summary

There are clear examples of differential access to surgery by age and these differences are not always justifiable. In some areas, older patients could sustain higher levels of surgical intervention than is currently the case but, for this to be successful, the physiological changes and special needs of older patients must be recognised. We have found no evidence of the common occurrence of 'heroic interventions' surgical treatment that is inappropriate given the age and frailty of the patient.

#### 6.5. Accident and Emergency / Trauma care

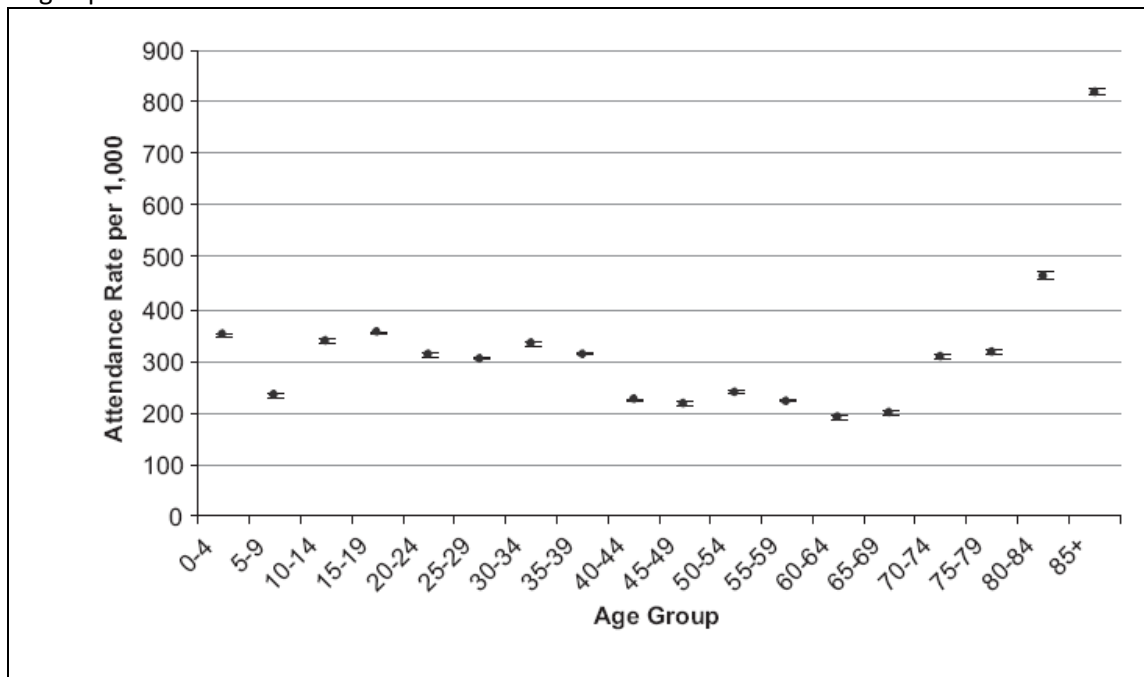
6.5.1. Evidence of age discrimination in the provision of hospital accident and emergency services is unclear. Older people complain of long waits in A&E and a survey carried out by the Association of Community Health Councils for England and Wales (ACHCEW), reporting in 2001, confirmed that, on average patients 60 years and over waited longer than patients in other age groups and that there was a tendency for the average wait to increase with age. Older patients are much more likely than younger patients to be admitted to hospital from A&E and the wait for a bed may account for some or all of the longer waiting times. Studies report 46-48% of over 65s admitted to hospital compared with 14-20% of younger patients (Alberti, 2004, Review; Downing and Wilson, 2005, Large survey; British Geriatrics Society, 2008, Guide)

Age Group	Count	Average wait hrs:mins	% in group
Not Known	45	3:33	1.2%
<16	506	1:40	13.0%
16 - 39	1063	2:50	27.3%
40 - 59	747	3:41	19.2%
60 - 69	383	4:53	9.8%
70 - 79	546	4:22	14.0%
80+	603	4:34	15.5%
Total	3893	3.35	

(ACHCEW, 2001)

6.5.2. The perception is that older people form a high proportion of Accident and Emergency cases but in reality, over 65s make up 15-18% of A&E admissions.(Downing and Wilson, 2005; British Geriatrics Society, 2008) However, in relation to the numbers of older people in the population the picture is very different. The attendance rate per 1,000 population is much higher for those aged 80 and over.

Age-specific rates of new A&E attendance with 95% confidence intervals



Downing and Wilson, 2005

6.5.3. Individual, high profile examples of poor care in Accident and Emergency departments, particularly affecting older people and resulting in the deaths of patients, can and do occur. A 2009 Healthcare Commission report into the treatment of patients at Stafford Hospital between 2005 and 2008 found that 400 more people died than would be expected. The report found that unqualified receptionists carried out initial checks on patients arriving at the accident and emergency department, heart monitors were turned off in the emergency assessment unit because nurses did not know how to use them, there were not enough nurses to provide proper care, patients were "dumped" into a ward near A&E without nursing care so the four-hour A&E waiting time could be met and there was often no experienced surgeon in the hospital during the night. (Healthcare Commission, 2009, Review)

6.5.4. A 2000 study of the management of elderly blunt trauma victims in Scotland found that significantly more of the elderly died than would be predicted. Once admitted to A&E, older patients were less likely to be admitted to intensive care, less likely to be managed in

a resuscitation room, and less likely to be transferred to a regional neurosurgical care centre. Age appeared to be an independent factor in the process of trauma care in Scottish hospitals. (Grant, Henry and McNaughton, 2000, Large survey)

- 6.5.5. The Commission for Health Improvement 2004 survey of patient experience, including A&E, found that, in general patient satisfaction with A&E increased with age, except for those aged 80 plus who were generally less satisfied than younger older people. The main exception to this was in satisfaction with the provision of information by medical staff which peaked with 50-59 year olds and declined thereafter. (Raleigh et al, 2004, Large survey) Patient satisfaction is not however, in itself, an indication of the presence or absence of age discrimination since individual patients have no yardstick against which to measure their own experiences.
- 6.5.6. The Care Quality Commission's 2008 survey of 50,000 patients attending accident and emergency departments in 151 acute trusts across the NHS, although recording the age of the patient in the survey questionnaire, does not publish the results of patient experiences sub-divided by age group, so it is not possible from published results to compare the experiences of older and younger patients. (Care Quality Commission, 2008, large survey)

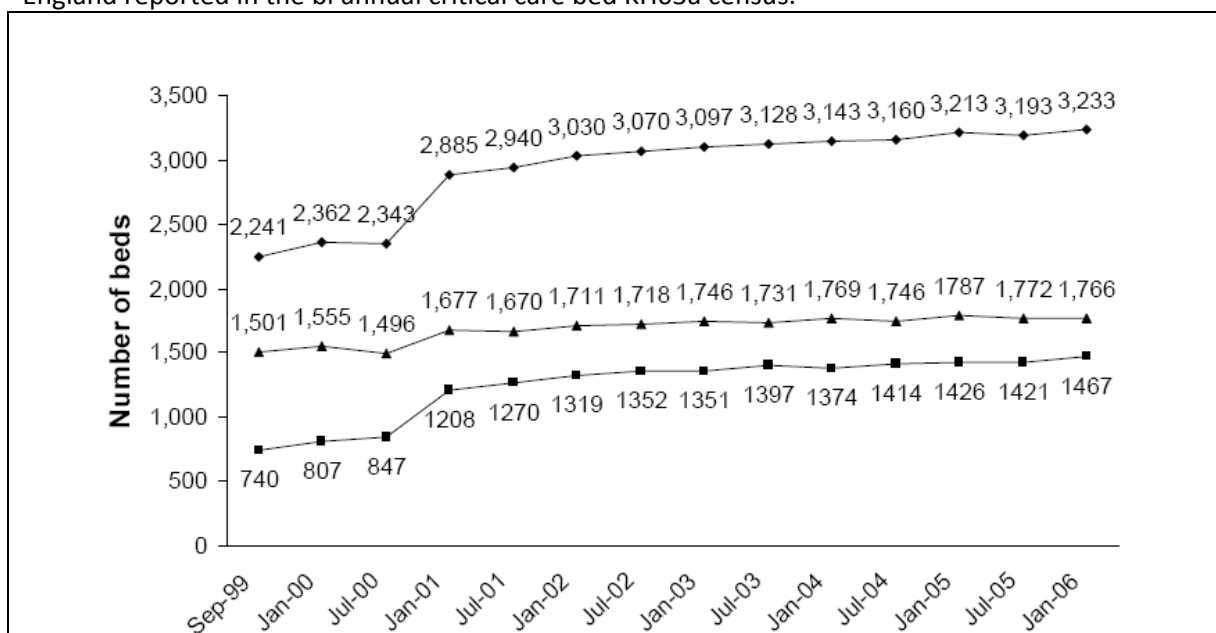
### *Summary*

Evidence of age discrimination in accident and emergency care is mixed. Older people wait longer in A & E but are more likely to be admitted to hospital. Older trauma victims are less likely to be taken from A & E to intensive care, be managed in a resuscitation room or transferred to a regional neurosurgical care centre.

## 6.6. *High Dependency and Intensive Care Units*

- 6.6.1. "Critical care is recognised to be one of the key acute hospital services. Unfortunately, due to the competing demands of emergency and elective admissions, patient flow through the entire hospital can be constrained by inadequate critical care capacity. Such constraints are usually manifest as postponed operations for elective admissions and non-clinical transfers for emergency patients. Although the number of critical care beds has increased since 2000 it is unclear, in the face of greater hospital activity, whether the extra critical care capacity is sufficient to prevent critical care from being a 'bottleneck' within the hospital system." (The Intensive Care Society's and Department of Health's Working Group on Patient Flows in Critical Care, 2007)

The number of ICU beds (triangles), HDU beds (squares) and total critical care beds (diamonds) in England reported in the bi annual critical care bed KH03a census.



(The Intensive Care Society's and Department of Health's Working Group on Patient Flows in Critical Care, 2007)

- 6.6.2. Given the recognised shortage of critical care beds in the United Kingdom, it is inevitable that rationing of some sort will take place. Evidence on whether age-based rationing of critical care beds is occurring is mixed. A 2003 study of 4,058 cases sampled every 12 days for one year in South Wales and assessed by an expert panel without knowledge of the patient's age, concluded that there was no evidence of age discrimination although the panel assessed that 48.3% of patients aged under 55, treated on a general ward, should have been in critical care, compared with 54.4% of those aged 55 and over and 56.6% of those aged 85 and over. (Hubbard et al, 2003, Large survey)
- 6.6.3. A study of elderly blunt trauma victims in Scotland found, for severely injured patients, that the odds of being transferred to an intensive care unit at age 70 were only three quarters those of being transferred at age 30, resulting in a higher than expected rate of mortality for the elderly trauma victim (Grant, Henry and McNaughton, 2000, Large survey)
- 6.6.4. Although not indicative of age discrimination in the UK, a Canadian systematic review of the rationing of critical care beds concluded that patients refused intensive care unit admission had a hospital mortality rate three times greater than those admitted and that age was a factor in the refusal of critical care. (Sinuff et al, 2004, Systematic review)

6.6.5. Others acknowledge that age-based rationing in intensive care is taking place in the UK but feel that it is justified. Clare Clarke, writing in the Journal of Advanced Nursing in 2001 concludes that “If age is to be used as a criterion to ration limited resources explicit national guidelines need to be developed and applied consistently to ensure that arbitrary differences in the treatment older people receive does not occur.” (Clarke, 2001, Opinion)

*Summary*

There is a recognised shortage of intensive care beds in the UK for patients of all ages but the proportion of patients on a general ward who should have been in intensive care increases with the age of the patient. An older trauma victim is much less likely than a younger patient to be transferred to intensive care.

6.7. *End-of-Life care / Palliative care*

6.7.1. Although the majority of older people die in hospital, hospitals are focussed on patient survival and may not be organised to provide required levels of palliative care where different priorities and a different emphasis is necessary. It is suggested that “older people are less likely to receive end-of-life care”. (Department of Health, 2008, Policy document) There is some evidence of direct age discrimination, in that older people and younger people may be treated differently in end-of-life provisions, but the main issue is probably one of indirect discrimination through failure to provide an adequate end-of-life / palliative care service to hospitalised older people.

6.7.2. The majority of patients who die in hospital are over the age of 65 and evidence suggests that three fifths are over the age of 75. (Costello, 2001, Study)

Place of death in England and Wales (2001) – all ages (%)

Setting	Deaths at all ages	Over 65 years	85+
Home	19%	17%	11%
NHS hospital and NHS nursing homes	56%	56%	51%
Voluntary hospices	4%	4%	1%
Communal establishments	18%	21%	36%
All settings	(100%) n=530,373	(100%) n=440,396	(100%) n=166,618

(Seymour et al, 2005)

Source: National Statistics Online (2004)

6.7.3. “Most research about dying in hospital, with some exceptions, presents a gloomy picture of poor quality care in busy, noisy and dirty wards, where medical and nursing staff devote



little attention to the dying who are sometimes marginalised in side rooms” (Seymour et al, 2005, Study - referencing Rogers et al, 2000, Study)

- 6.7.4. A 2001 end-of-life care survey of hospital patients, nurses and physicians found that “the care of older dying patients was defined by a lack of 'emotional engagement' with the patient and the institutionalized nondisclosure of information about death and dying.” “Although nurses provide individual care to dying patients, much of this was aimed at meeting patients' physical needs.” (Costello, 2001, Small survey)
- 6.7.5. “There is evidence that death in hospital is sometimes poorly managed with inadequate symptom control, poor support for patient and carers and little clear and open communication about prognosis and treatment.” (Seymour et al, 2005, Study – referencing Costello, 2001, Small survey)
- 6.7.6. A 2005 study by researchers from the University of Sheffield, on behalf of Help the Aged, looking at end-of-life care, reported earlier findings that, whereas most people die in hospital, that is not the place in which most people want to die. “About half of all deaths do not take place in the setting that the dying person prefers.” The study also highlighted possible examples of direct age discrimination. “.. across all regions in England, older people with cancer are less like to die at home than younger people... only 8.5% of those aged over 85 dying of cancer die in a hospice, compared with 20% of all cancer deaths” (Seymour et al, 2005, Study)
- 6.7.7. These findings are confirmed by a national telephone survey carried out by the Cicely Saunders Foundation in 2002 (Higginson, 2003, Survey) presented as evidence to the 2004 House of Commons Health Committee enquiry into hospice and palliative care. (National Council for Hospice and Specialist Palliative Care Services, 2004, Review)

Preferences versus reality: Where patients want to be cared for and where they actually die			
Place of death	Preferred place of death	Actual place of death – all causes	Actual place of death – cancer principal cause
Home	56%	20%	25%
Hospice	24%	4%	17%
Hospital	11%	56%	47%
Care Home	4%	20%	12%

(National Council for Hospice and Specialist Palliative Care Services, 2004)

- 6.7.8. Palliative care services for cancer patients are generally recognised as more advanced than those for other terminally ill patients, but cancer is not the main cause of death for the oldest patients.

6.7.9. “The prevalence of symptoms in people with a non-cancer diagnosis has many similarities to that for people with cancer. But only 1% of those with a non-cancer diagnosis have access to specialist community teams in the last year of life compared with 40% of those with cancer.” (National Council for Hospice and Specialist Palliative Care Services, 2004, Review)

Major cause of death by sex and age, 2003

England and Wales	Men			Women		
	45-64	65-84	85+	45-64	65-84	85+
Respiratory diseases	7%	14%	21%	8%	14%	18%
Cancer	37%	32%	18%	53%	29%	11%
Injury and poisoning	6%	1%	2%	4%	2%	2%
Infectious diseases	1%	1%	1%	1%	1%	1%
Circulatory diseases	35%	41%	42%	21%	40%	44%
	644	4,316	18,803	404	3,122	16,219

Source: National Statistics Online (2009)

6.7.10. “Around 83% of all deaths are of people aged 65 and over and it might reasonably be expected that a similar percentage of people of that age would gain access to specialist palliative care services. However the percentages range from under 60% to 68%, well under the 83%. It would be important to understand the reasons for that in order to be able to discount any possibility of age discrimination.” (National Council for Hospice and Specialist Palliative Care Services, 2004, Review)

### Summary

Older patients do not receive equivalent levels of end-of-life care to those received by younger patients. In part this is explained by the better end-of-life care received by cancer patients who are, on average, younger, but age appears to be an independent factor both in place of death and access to specialist care.

## 6.8. Resuscitation

6.8.1. ‘Do not resuscitate’ (DNR), ‘do not attempt resuscitation’ (DNAR), ‘not for resuscitation’ (NFR), and ‘allow natural death’ (AND) instructions on patient notes have been a cause for concern by older people’s organisations with a suspicion that, because of ageist attitudes in the NHS, older people are more likely to receive such orders, based solely on their age. (Ebrahim, 2000, Opinion) There is also a suspicion that, once a DNR order has been

imposed, it affects not just the decision about whether or not to use cardiopulmonary resuscitation but also the general level of care that a patient receives (Dangoor, 2001, Opinion)

- 6.8.2. Concern was such that resuscitation gained a particular mention in the National Service Framework for Older People. "Specific concerns have been raised about resuscitation policies, and whether older people are more likely to be denied cardiopulmonary resuscitation on the grounds of age alone. ... local resuscitation policies should be based on the guidelines issued by the BMA, RCN and Resuscitation Council, and should be regularly audited to prevent age discrimination." (Department of Health, 2001, Policy document)
- 6.8.3. Despite these concerns, firm evidence of age discrimination in the application of DNR / DNAR orders is limited. A 2004 UK study of the application of DNAR orders following cardiac surgery found that, while DNR orders appeared more than twice as frequently in patients aged 70 or over, multiple organ failure scores were similar for DNR patients in the two age groups suggesting that severity of illness was more important than age in determining resuscitation status. (Mackay et al, 2004, Large survey)
- 6.8.4. Joint guidance on resuscitation has been issued by the British Medical Association, the Resuscitation Council (UK) and the Royal College of Nursing which indicates that DNR orders should only be issued by senior medical staff and should not normally be issued without consulting the patient or their family. A 2005 study of 58 DNR cases found that while all orders were issued by senior medical staff, in only 10% of cases had the patient been consulted and the family were involved in only 36% of cases. In addition, only one third of patient notes indicated clearly whether the order applied only to cardiopulmonary resuscitation. (Harris and Linnane, 2005, Small survey)

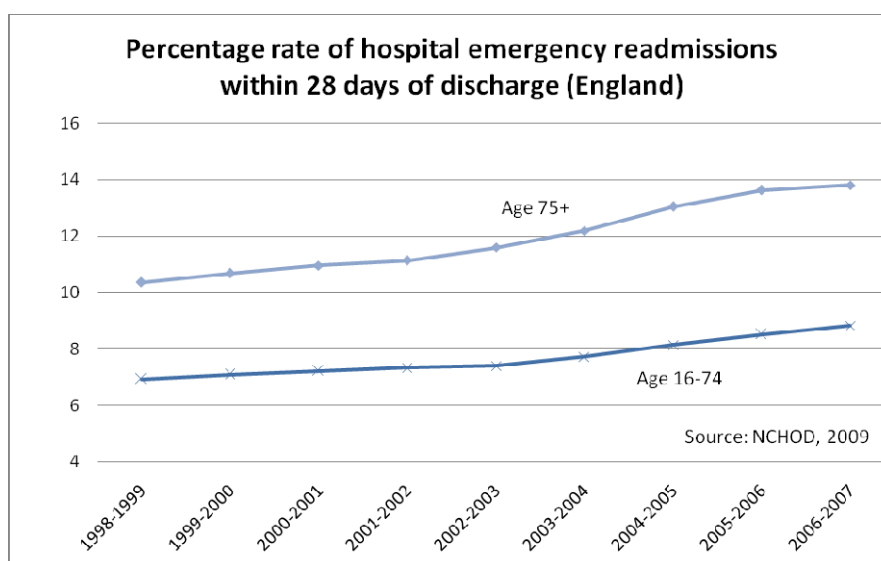
#### *Summary*

Suspicion of ageism in the application of 'Do Not Resuscitate' order is widespread but, although there is firm evidence that guidelines on consultation are often not being adhered to, there is no firm evidence of age discrimination in their application.

#### 6.9. *Emergency readmission*

In a joint report published in 2009, Age Concern and Help the Aged have expressed concern at the increasing proportion of hospital patients aged 75 and over who are readmitted as

emergency admissions within one month of discharge. (Harrop et al, 2009, Policy document)



It is not clear how much of the higher rate for older people results from increased frailty and how much from poorer standards of care. Nor can we easily ascertain how much of the increase in that rate (a 27% increase between 1998-9 and 2006-7) can be attributed to an insufficiently high standard of hospital care or premature or insufficiently well planned discharge.

### Summary

The high, and increasing, rates of hospital readmission within 28 days of hospital discharge, for older patients, is a clear indication of problems with the hospital care or discharge procedures for this group. This would appear to be a case of indirect discrimination, where universally applied policies are particularly disadvantageous to older people.

## 7. Areas of discrimination in the treatment of particular conditions

### 7.1. Oncology (Cancer)

7.1.1. Cancer is more common in later life. Around one-third of all cancers are diagnosed in people over 75 who form only around 7% of the population. (NHS Scotland, 2001, Review)

7.1.2. Oncology professionals may, on average, have negative attitudes towards older people. A study carried out at a regional cancer centre in the UK in 1999, using Kogan's Old People

Scale showed that all professionals tested, medical staff, nursing staff and radiographers, male and female, had similar levels of negativity towards older people. (Kearney et al, 2000, Survey) The study did not, however, reveal how oncology professionals compare with other groups of professionals or with the population in general.

Is this possible negative attitude towards older people reflected in service provision?

7.1.3. The following studies of cancer care in older patients show that fewer diagnostic and staging procedures and less treatment is carried out with advancing age and that disease specific survival rates decline with age.

7.1.4. Turner, Haward, Mulley and Selby used data from the Yorkshire Cancer Registry, covering a population of 3.7 million, to illustrate the point using histological confirmation as a marker for the adequacy of investigation.

Proportion (%) of cancers confirmed by histology, cancer patients with no definite treatment and cancer patients surviving five years, by age group, Yorkshire 1989-93									
Site	Confirmed by histology			No definite treatment			Five year survival*		
	0-64	65-74	75+	0-64	65-74	75+	0-64	65-74	75+
Breast	97	91	63	1	4	11	71	68	54
Colon	95	89	75	9	16	31	43	39	37
Lung	80	70	44	32	48	76	8	5	2
Prostate	94	91	78	6	8	15	46	46	42
Skin (non-melanoma)	98	98	96	1	1	2	98	99	100
Stomach	90	86	70	32	44	66	16	11	9

\*Excludes deaths from other causes

(Turner et al, 1999)

7.1.5. An analysis of **all** hospital treatment of colorectal cancer patients in Scotland between 1992 and 1996 revealed that, when all other factors have been controlled for, age is a significant determining factor in both level of investigation and treatment received. Older patients are less likely to receive a full investigation, as indicated by histology, and also less likely to receive definitive surgery or chemotherapy.

75-84 year olds were 2.7 times less likely and 85+ year olds 4.8 times less likely than the 17-54 age group to receive histological verification.

75-84 year olds were 20% less likely to receive definitive surgery and those aged 85 and over 55% less likely to receive definitive surgery than those in the 17-54 age group.

About one third (32.8%) of 17-54 year olds and one fifth (18.5%) of 55-64 year olds received chemotherapy. However in the oldest age groups only 47 patients aged 75-84

(1.4%) and 1 patient aged 85+ (0.1%) received this treatment.

Number of patients within each age-band and unadjusted results for each of the outcome variables (percentages are shown in brackets).				
Age-band	Patients	Histological verification	Chemotherapy	Definitive surgery
17-54	1319	1260 (95.5)	433 (32.8)	1061 (80.4)
55-64	2486	2348 (94.4)	459 (18.5)	2046 (82.3)
65-74	4341	4012 (92.4)	411 (9.5)	3533 (81.4)
75-84	3445	3036 (88.1)	47 (1.4)	2606 (75.6)
85+	1185	925 (78.1)	1 (0.1)	729 (61.5)
Total	12776	11581 (90.6)	1351 (10.6)	9977 (78.1)

This study made efforts to correct for co-morbidity [noting hospital admission in the previous two years with a principal diagnosis of diabetes, hypertension, ischaemic heart disease, other heart disease, cerebro-vascular disease, respiratory disease or arthritis], tumour sub-site [known to vary with age], whether the admission was an emergency [known to be associated with a poorer outcome], sex and an indicator of deprivation. (Austin and Russell, 2003, Large survey)

Percentage of patients referred for histological confirmation

Type of patient	Age <65	Age 65-74	Age 75+
All patients	89	86	80
No COPD	93	87	81

Percentage of patients receiving treatment within 6 months of bronchoscopy

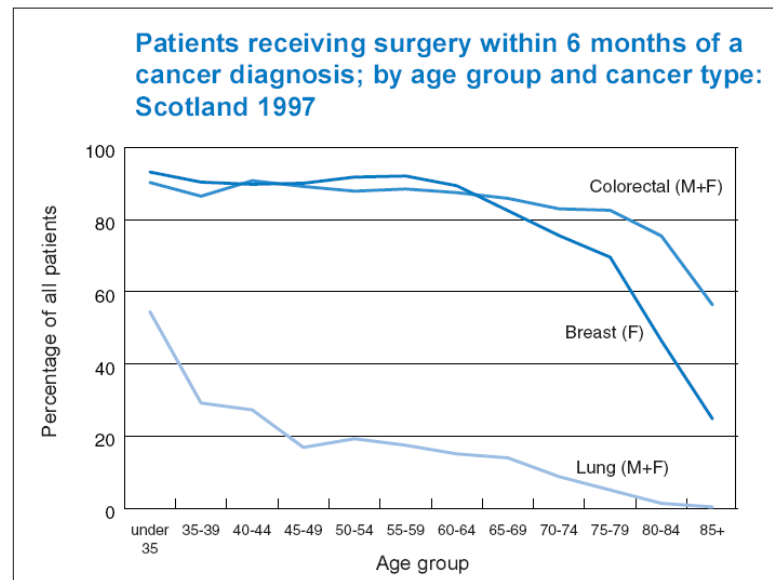
Type of treatment	Age <65	Age 65-74	Age 75+
All active treatments	78	67	49
NSCLC - % Surgery	19	12	6
SCLC - % Chemotherapy	77	66	48
% Radiotherapy	45	47	39

n=1,652

(Peake et al, 2003, Large survey)

7.1.6. This pattern of under-investigation and under-treatment with advancing age is confirmed in a 2003 study of 1,652 lung cancer patients across 48 hospital trust in the UK. Patients were with and without chronic obstructive pulmonary disease (COPD) and with small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). Histological confirmation was used as an indicator of the level of investigation and surgery, chemotherapy or radiotherapy, as appropriate as an indicator of treatment.

7.1.7. Analysis of the Scottish Cancer Registry performed by the Chief Medical Officer’s expert group on the healthcare of older people in Scotland showed that the proportion of patients receiving surgery within 6 months of diagnosis with colorectal, lung or breast cancer declines markedly with age. (Wood and Bain, 2001, Large survey)



Source: Scottish Cancer Registry, ISD (Wood and Bain, 2001)

This study confirms other findings that older people are less likely to receive treatment for cancer.

7.1.8. “Even for the oldest and frailest cancer patient, there is never ‘nothing we can do’. Treatment, whether palliative or aiming at cure, should always be tailored to individual circumstances, and older patients should receive scrupulous attention to explanation of the possible options and their implications.” (NHS Scotland, 2001, Review)

7.1.9. A 2007 study of breast cancer patients in Manchester found that older women are less likely than younger women to receive ‘standard’ management for breast cancer. Older women are less likely than younger women to have surgery for operable breast cancer,

even after accounting for differences in general health and co-morbidity. (Lavelle et al, 2007, Study)

The National Mastectomy and Breast Reconstruction Audit (2009) confirmed that older women are less likely than younger women to receive reconstructive surgery following mastectomy and also less likely to receive adjuvant therapies. (Royal College of Surgeons of England et al, 2009, Large survey)

Proportion of women who underwent immediate reconstruction, by type of tumour. Figures based on linked HES-Registry records of women diagnosed with breast cancer between 1998 and 2004

	Age of women at diagnosis (years)					
	Under 40	40 to 49	50 to 59	60 to 69	70 to 79	80 plus
Number of women with invasive tumours who had a mastectomy	3,244	8,833	12,942	12,344	13,242	5,259
Mastectomy only (%)	80	85	90	97	100	100
Mastectomy with immediate reconstruction (%)	20	15	10	3	0	0
Number of women with non-invasive tumour who had a mastectomy	214	536	1,441	914	447	128
Mastectomy only (%)	60	60	72	90	99	100
Mastectomy with immediate reconstruction (%)	40	40	28	10	1	1

National Mastectomy and Breast Reconstruction Audit (2009)

Proportion of women with invasive tumours who have adjuvant therapies with mastectomy. Figures based on women diagnosed between 1998 and 2004 in a subset of cancer registries.

	Age of women at diagnosis (years)					
	Under 40	40 to 49	50 to 59	60 to 69	70 to 79	80 plus
Number of mastectomies	1,084	3,409	5,696	5,927	6,388	2,530
Surgery only (%)	21	26	40	51	61	75
Surgery with chemotherapy (%)	37	32	23	12	2	0
Surgery with radiotherapy (%)	7	9	13	25	34	24
Surgery with chemotherapy and radiotherapy (%)	36	34	24	13	3	0

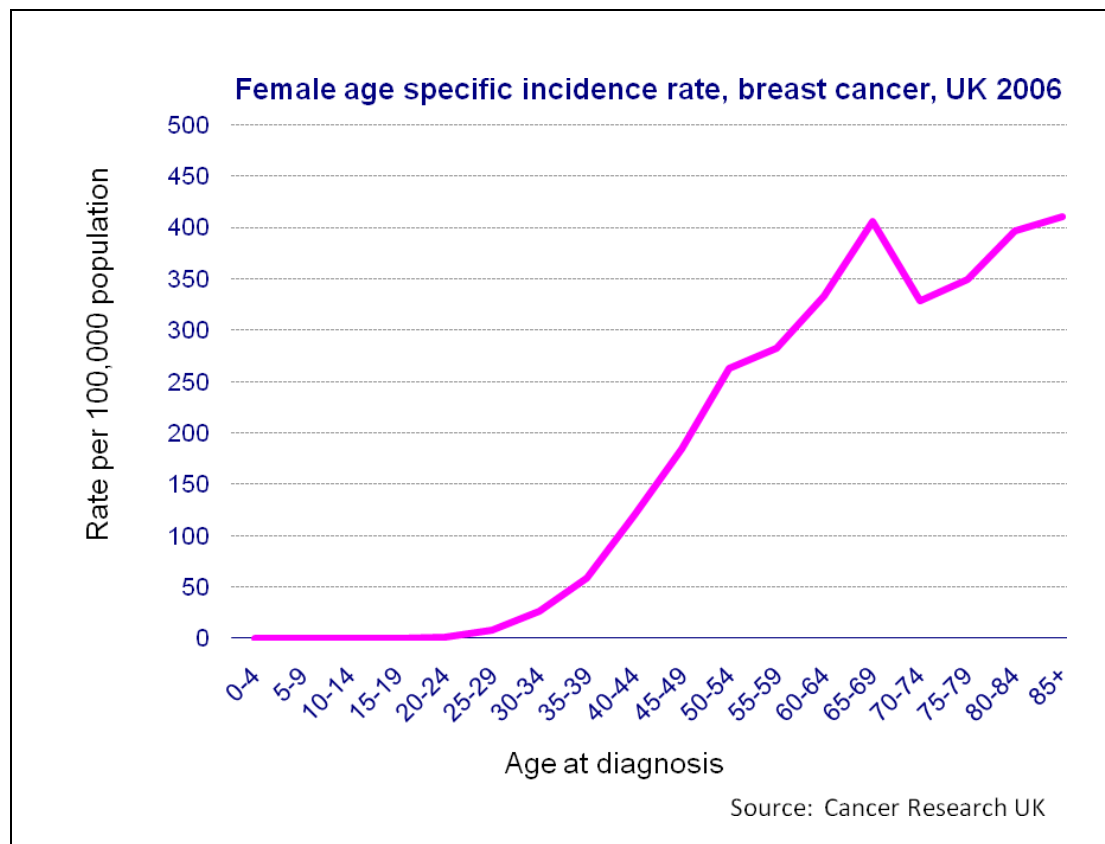
National Mastectomy and Breast Reconstruction Audit (2009)

#### 7.1.10. Screening programmes

Early diagnosis and referral from primary care is an important factor in the successful treatment of cancer. There is evidence that primary care cancer screening programs are not meeting the needs of older people with (in March 2009) upper age limits of 69 for breast and bowel screening and 64 for cervical cancer screening by routine invitation, despite the fact that more lives are lost from cervical cancer in women aged over 70 than in

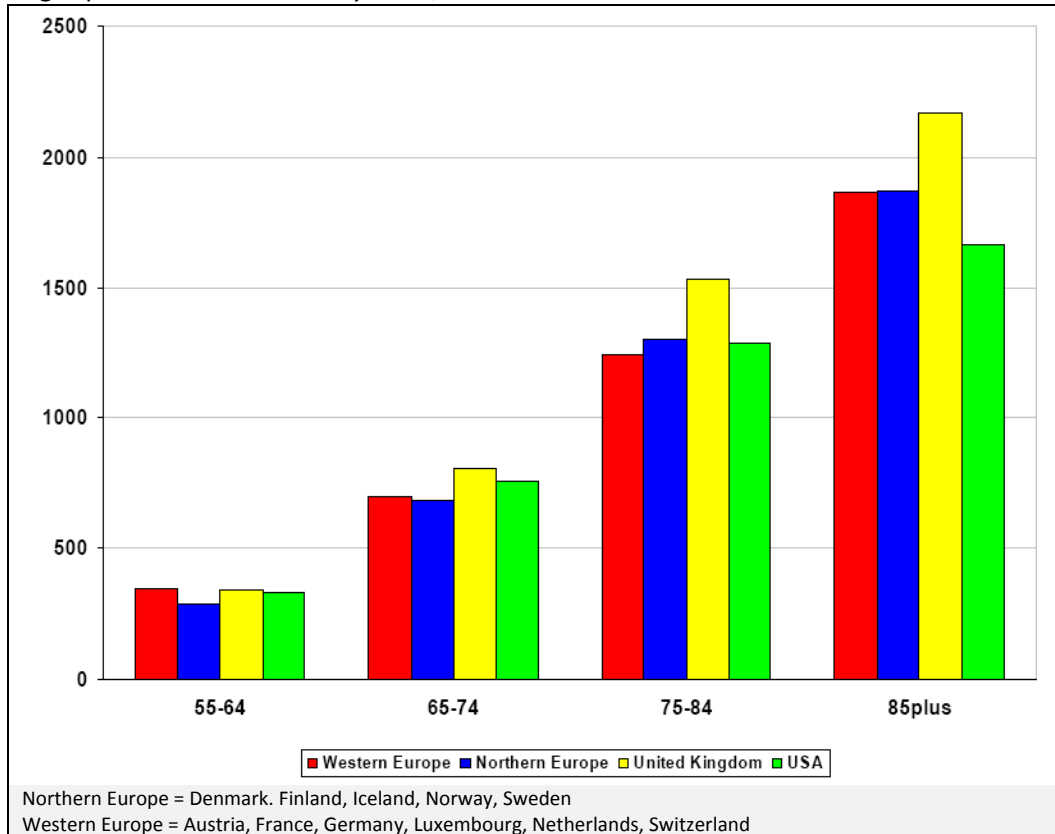


women under the age of 30. (White, 1999, Study) There is no clear evidential base for the upper age limit in the bowel screening programme (Quarini and Gosney, 2009, Review) and, although incidence rates are not the only factor in assessing the efficacy of a screening programme, female breast cancer incidence rates would appear to argue against the upper age limit in the breast cancer screening programme. There is no national screening programme for prostate cancer which almost exclusively affects older men, but discussion continues around risks and benefits in the light of increasing prevalence. (Donovan et al, 2005, Opinion; Lee and Patel, 2002, Opinion, Martin, 2007, Study)



7.1.11. The overall result of these and other contributory factors is that cancer mortality rates for older people are noticeably higher in the United Kingdom than in the USA or in other countries of northern and western Europe. (Moran and Moeller, 2009, Review)

Age specific cancer mortality rates, 2003-2005



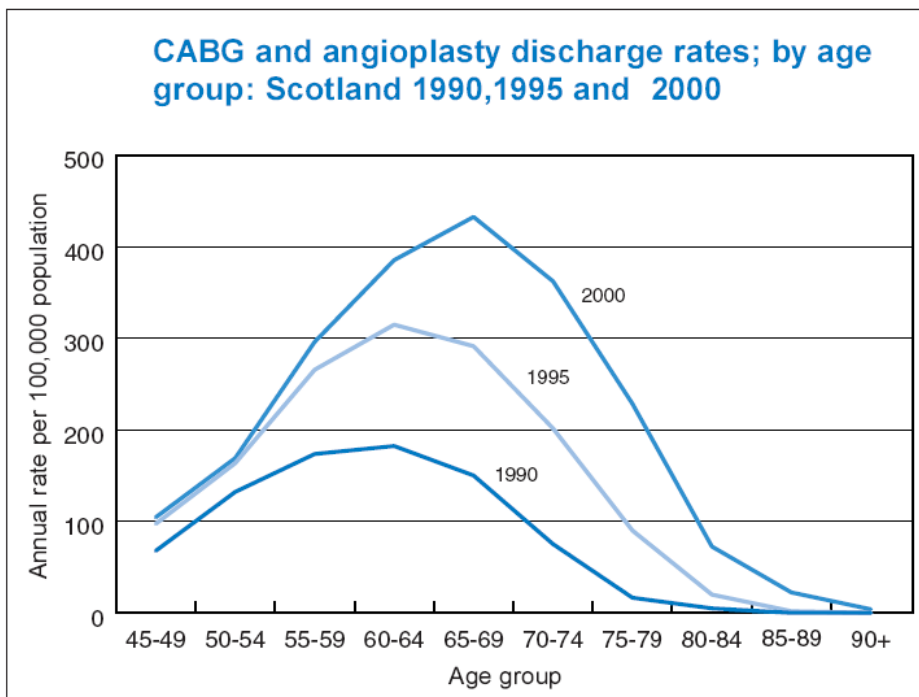
Moran and Moeller, 2009

### Summary

There is clear, multiple and widespread evidence of a reduction in the investigation and treatment of cancers with the increasing age of the patient. The link with age appears to be clear even when other factors such as co-morbidity and tumour subsite are taken into account. The net result is that age specific mortality rates for older people dying from cancer are higher in the UK than in northern or western Europe or the USA.

## 7.2. Cardiology

- 7.2.1. There is a strong body of evidence that older people attending hospital with heart disease are less likely to be fully investigated and less likely to receive treatment than younger people. The differences are so marked that they are unlikely to be accounted for by co-morbidity or frailty in the older patient.



Source: SMR01 dataset, ISD

(Wood and Bain, 2001)

- 7.2.2. Although revascularisation rates increase with age up to the 65-69 year age group the rate declines in older age groups. For the period 1990-2000, the percentage increase in treatment has been most marked in the older age groups and the average age of patients undergoing coronary revascularisation has increased. (Wood and Bain, 2001, Large survey)
- 7.2.3. Doctors may be reluctant to refer older patients for CABG because of the perceived risk but risks are very dependent on the urgency of treatment. Coronary artery bypass grafting in octogenarians carries a mortality of 33% for emergency surgery and 14% for urgent surgery compared with 3% for elective surgery. (Preston et al, 2008, study - referencing Alexander and Peterson, 1997, Study)
- 7.2.4. The following two studies of the treatment of heart disease in district general hospitals in England reveal similar patterns in the investigation and treatment of older patients. In the first study of 1,790 patients with acute myocardial infarction (heart attack), those aged 75 and over are much less likely to have an echocardiogram, exercise tolerance tests or cardiac catheterisation study. Excluding patients with contra-indications, patients age 75 and over are much less likely to receive thrombolysis or secondary prevention treatment. (Dudley et al, 2002, Large survey)

Percentage of patients without contra-indications receiving treatment

Treatment	Age under 75	Age 75+
Thrombolysis	47%	27%
Prescribed beta-blockers	53%	26%
Prescribed aspirin	80%	59%

n=1,790

(Dudley et al, 2002)

7.2.5. A similar 2003 District General Hospital study of 712 patients with ischaemic heart disease, angina pectoris or acute myocardial infarction found that older patients received a lower proportion of investigations (exercise tolerance tests, cardiac catheterisation and angiography), and although not discriminated against for indicated treatments (revascularisation or thrombolysis) received a lower proportion of treatments as a result of not having been investigated. (Bond et al, 2003, Survey)

7.2.6. A 2004 study using Hospital Episode Statistics (HES) from the Department of Health covering **all** NHS hospital admissions in England for the period 1991-1999 used the rate of occurrence of myocardial infarction, by age group and sex, as an indicator of treatment need. The ratio of the number of coronary artery bypass graft treatments to the number of myocardial infarctions for that age group and sex, and the ratio of the number of percutaneous transluminal coronary angioplasty treatments to number of occurrences of myocardial infarction for that age group and sex, were then taken as indicators of response to need.

Ratio of number of coronary artery bypass graft (CABG), and percutaneous transluminal coronary angioplasty (PTCA) treatments, to number of occurrences of myocardial infarction by age and sex. 1991-1999

		1991-3		1994-6		1997-9	
		Males	Females	Males	Females	Males	Females
CABG	40-64	0.30	0.20	0.41	0.28	0.42	0.30
	65-74	0.17	0.11	0.30	0.19	0.40	0.24
	75 & over	0.03	0.01	0.06	0.03	0.10	0.04
	All ages	0.18	0.07	0.28	0.12	0.32	0.14
PTCA	40-64	0.17	0.16	0.30	0.28	0.41	0.41
	65-74	0.07	0.06	0.13	0.12	0.22	0.21
	75 & over	0.02	0.01	0.04	0.03	0.06	0.04
	All ages	0.10	0.05	0.17	0.10	0.25	0.15

Source HES: (Department of Health) – Shaw et al, 2004

The table above, using data from Shaw et al, 2004 reveals that, although the ratio of treatment to need has steadily improved for all age groups and both sexes over the period, in 1997-9 for example, when comparing the ratio of coronary artery bypass graft treatment to possible need, a woman aged 40-64 was over seven times more likely to be treated in response to a given need than a woman aged 75 and over, and over ten times more likely to receive PCTA treatment in response to a given need than a woman in the older age group. (Shaw et al, 2004, Large survey)

- 7.2.7. Further evidence of the under-treatment of older patients was revealed by a 2005 study of 1,046 patients with acute coronary syndromes but without ST elevation from 56 UK hospitals [an elevated ST segment of an electrocardiogram may be associated with a myocardial infarction (heart attack)].

Percentage of patients with acute coronary syndromes but without ST elevation, receiving treatment				
Treatment	Age			
	<60	60-69	70-79	80+
Angiography at 6 months	36.4	31.1	23.3	5.0
Revascularisation	18.9	18.4	12.3	3.4

Similar results were found for the in-hospital use of oral medications and at 6 month follow-up

Percentage of patients with acute coronary syndromes but without ST elevation, receiving treatment		
Treatment (at 6 month follow-up)	Age	
	<60	80+
Aspirin	83	76
Beta blockers	51	29
Statins	58	38

n=1,046

(Collinson et al, 2005, Large survey)

- 7.2.8. At one time, widespread explicit age-based rationing of access to care was an issue in the National Health Service with age related admissions policies and older people being denied access to specialist care units purely on the basis of age. A 1991 survey of Coronary Care Units (CCUs) in the United Kingdom revealed that 19% operated an age-related admissions policy. Of the 134 units surveyed 2 used age 65 as the cut-off, 7 used 70, 14 used age 75 and 2 used 80. (Dudley and Burns, 1992, Survey) There has been a considerable improvement since then and a survey of 229 units carried out by the Royal College of Physicians in 2000 found only two operating an age-related admissions policy, one at age 65 and the other at age 75. (Birkhead, 2001, Survey)

7.2.9. To what extent is the treatment of older people in cardiology a result of the attitudes of medical staff? A 2006 study comparing the responses of cardiologists, care of the elderly specialists and GPs to a set of hypothetical patients presenting with possible heart related symptoms, found that care of the elderly specialists are much less likely than cardiologists to refer a patient for an angiogram or revascularisation and also less likely than a GP to refer a patient to a cardiologist. (Bowling et al, 2006, Group study). A second study on the same data revealed that patients aged 65 and older were only two-thirds as likely as middle aged patients to be referred to a cardiologist, given revascularisation, angiogram or an exercise tolerance test. (Harries et al, 2007, Group study)

#### 7.2.10. Secondary Prevention

A number of the studies above include treatments aimed at preventing the reoccurrence of cardiac episodes. Continued long term treatment may well be under a GP as part of a return to primary care but initial prescription is likely to have occurred in hospital. A 2005 study of the secondary prevention of coronary heart disease in older British men, using data collected in 2000 and 2003, reflects the variations in treatment by age shown in other studies. Analyses were based on 332 myocardial infarction cases and 485 angina cases studied in 2000, and on 336 myocardial infarction cases and 521 angina cases studied in 2003.

The study found that older men are less likely to be prescribed aspirin, statins, ace inhibitors and beta blockers. (Ramsay et al, 2005, Survey)

Percentage of cases receiving secondary prevention medication								
Condition	Myocardial Infarction cases				Angina only cases			
Year	2000		2003		2000		2003	
Treatment \ Age	62-73	74-85	62-73	74-85	62-73	74-85	62-73	74-85
Aspirin	82	82	87	81	68	64	70	73
Statins	43	18	79	48	26	16	57	39
ACE inhibitors	25	31	46	41	17	17	31	29
Beta-blockers	40	30	50	36	34	26	41	31

(Ramsay et al, 2005)

This problem with secondary prevention is not confined to the UK. A 2003 study of 15,590 patients with suspected ischaemic heart disease in Ireland found that female patients and patients aged 65 and over were less likely to be prescribed beta-blockers, aspirins or statins as a secondary preventative measure (Williams, Bennett and Feely, 2003, Large survey)

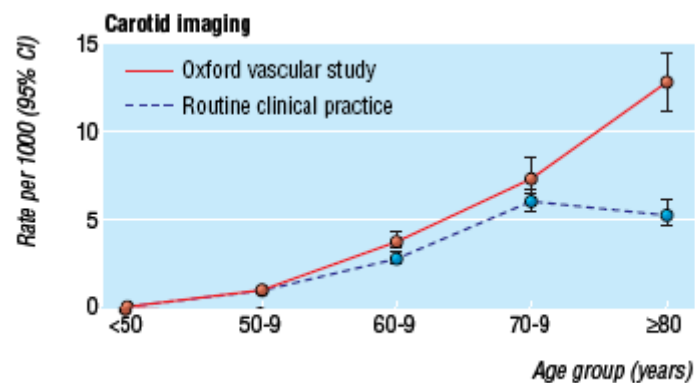
### Summary

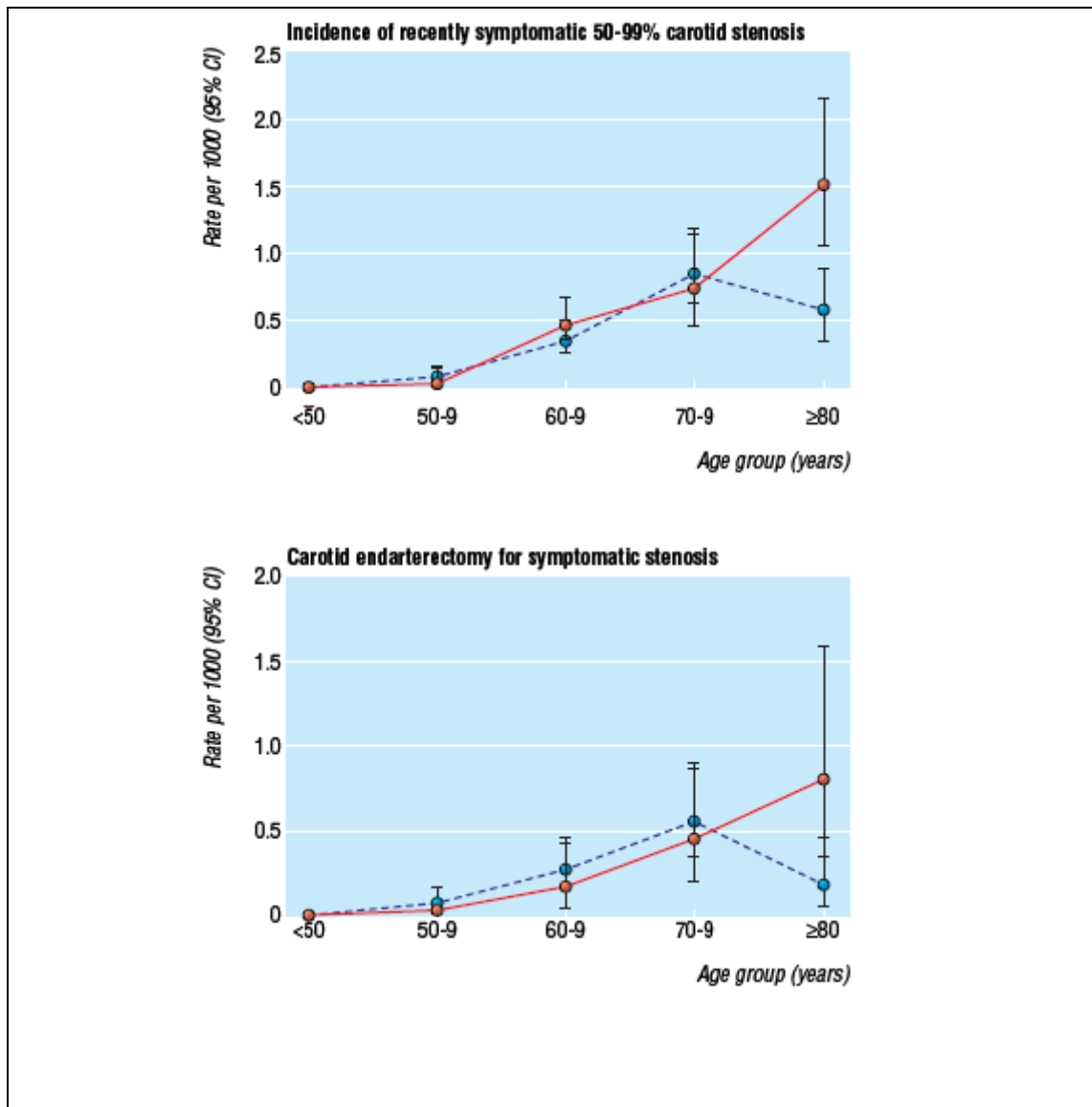
There is clear and widespread evidence of age discrimination in the hospital based investigation and treatment of heart disease and in the instigation of secondary prevention regimes following treatment.

### 7.3. Transient Ischaemic Attack and Stroke

7.3.1. The presence of ischaemic and/or coronary heart disease may be associated with the occurrence of a transient ischaemic attack (mini-stroke) or with stroke. It is not surprising therefore to find evidence, in routine clinical practice, of under-investigation and under-treatment of carotid disease in older patients with TIA and stroke, using the OXVASC study as a standard, carotid imaging as an indicator of investigation and carotid endarterectomy for symptomatic stenosis as an indicator of treatment. (Fairhead and Rothwell, 2006, Large survey)

**Age specific rates of carotid imaging, incidence of recently symptomatic 50-99% carotid stenosis, and carotid endarterectomy for symptomatic stenosis in the Oxford vascular study (OXVASC) and in routine clinical practice (Fairhead and Rothwell, 2006)**





7.3.2. Young and others argue that carotid endarterectomy ( a re-bore of the carotid artery) as a treatment for symptomatic carotid artery stenosis is more beneficial for older people than for younger people because of their increases risk of future stroke. (Young, 2006, Opinion)

7.3.3. The impact of stroke is high in terms of mortality, morbidity and expenditure. It is the third most common cause of death and a major cause of adult disability. Specialist care in stroke units has been shown to reduce mortality and morbidity regardless of the age or gender of the patient or severity of the stroke. The 2004 National Sentinel Audit of stroke, an audit of 246 hospitals and 8,718 patients in England, Wales and Northern Ireland with a 100% response rate, revealed that while 83% of hospitals have stroke units only 46% of all stroke patients are treated in a specialist stroke unit. (Rudd et al, 2007, Large survey)



7.3.4. The audit also found that older stroke patients are less likely than younger patients to receive treatment in a specialist stroke unit. This is particularly noticeable for patients aged 85 and over.

Percentage of stroke patients of each age group treated in a specialist stroke unit

Age	Percentage treated in a stroke unit
<65 years	48.0
65 - 74	48.9
75 - 84	47.4
85+	39.2

n=8,718

Rudd et al, 2007

7.3.5. The phenomenon of under treatment of older stroke patients is not confined to the United Kingdom. A 2008 study of 29,549 patients in Denmark admitted with stroke between 2003 and 2005 found that for all forms of treatment, admission to a specialist stroke unit, antiplatelet or anticoagulant therapy, CT/MRI scan, assessment by a physiotherapist or occupational therapist or nutritional risk evaluation, the proportion of eligible patients that received treatment declined consistently with the increased age of the patient. (Palnum et al, 2008) Similar results were obtained from the audit of an Australian stroke unit, giving rise to a call for further research. "Understanding *what* is happening is an important first step in solving this issue of concern" (Luker and Grimmer-Somers, 2008, Large survey)

7.3.6. Secondary prevention

A 2004 study of 235 hospitals providing care for acute stroke patients in England, Wales and Northern Ireland (95% of all such hospitals), found that fifty-four percent of patients with known hyperlipidaemia and 21% of those with previous ischaemic heart disease were on lipid lowering therapy on admission. Sixty-four percent of patients had lipids measured during their hospital stay and of those with high total cholesterol or LDL the rate of non-treatment was 36%. The study found that older patients (75+ years) were less likely to be treated (54%) than those <65 years (71%). (Rudd et al, 2004, Large survey)

### Summary

There is clear evidence of age discrimination in the treatment of Transient Ischaemic Attack and Stroke. Older patients are less likely than younger patients to be referred to a specialist stroke unit, or to receive appropriate investigation and treatment. They are also less likely than younger patients to be prescribed secondary prevention measures.

#### 7.4. *Diabetes*

- 7.4.1. Type-2 diabetes is predominantly a condition experienced by people aged 40 and over and is more likely among South Asian and African-Caribbean people. Diabetes will most commonly be treated in primary care but with possible referral to a hospital diabetes clinic. A 1997 study found that nursing home residents with diabetes, particularly those in a home specialising in mental health care, receive inadequate care for their diabetes (Benbow Walsh and Gill, 1997, Survey) A 2000 study of seven Leicestershire general practices found that older patients were less likely to be referred to a specialist hospital diabetes clinic and more likely to receive a diabetes review in general practice. On the assumption that reference to specialist care is beneficial and in the absence of clinical evidence to support the variations in referral rates this might be an indication of covert age discrimination. (Goyder, McNally and Botha, 2000, Survey)
- 7.4.2. Older patients attending hospital for other conditions have a greater risk of a co-morbidity of diabetes and therefore requiring special care and attention from the hospital diabetes care team. Failure to provide an adequate service would be a form of indirect discrimination against older people but we did not find firm evidence that this is the case. However, as in other cases, 'absence of evidence is not evidence of absence'. ( NHS Scotland. Expert Group on Healthcare of Older People, 2001)

#### *Summary*

There is some evidence of lower rates of referral of diabetes patients to specialist diabetes clinics, which may be an indicator of discrimination. There is however no firm evidence of indirect discrimination through the inadequate provision of services to hospitalised diabetes sufferers.

#### 7.5. *Osteoporosis*

- 7.5.1. Like diabetes, osteoporosis is a condition affecting mainly older people and so inadequate service provision would be a form of indirect age discrimination.
- 7.5.2. It is the most common bone disease in humans and the cost to the NHS of osteoporosis and osteoporotic fracture care is estimated at almost £2 billion per annum with osteoporotic fracture being the strongest risk factor for future fracture. Retrospective case audits carried out in a UK hospital in 2004 and 2005, to assess the effectiveness of British Orthopaedic Society guidelines and awareness raising in the hospital, found that, in the

first audit, out of 38 cases identified as fragility fractures that should have been assessed or offered referral only 5 (13%) were referred. In the second audit a year later this had improved to 23 out of 43 (53%) (Gidwani et al, 2007, Small survey)

- 7.5.3. Some authors recommend the introduction of a primary care osteoporosis screening programmes to assess bone mineral density, because osteoporosis has a long preclinical course (Mauck and Clarke, 2006, Review) while others emphasise the importance of falls prevention programmes (Jarvinen et al, 2008, Opinion)
- 7.5.4. Recent NICE guidance on the treatment of osteoporosis suggest that women over the age of 75 who suffers a fragility fracture be assumed to have osteoporosis and should not be routinely assessed for osteoporosis using dual energy x-ray absorptiometry (DEXA) equipment. This may be viewed as discriminatory. It is argued that this recommendation will lead to unnecessary treatment since only 50% of such cases actually have osteoporosis (Ralston et al, 2009, Opinion)

#### *Summary*

Because osteoporosis mainly affects older people, inadequate service provision would be a form of indirect discrimination. There is, however, as yet no firm evidence of age discrimination in the treatment of this condition.

#### 7.6. *Osteoarthritis*

- 7.6.1. Osteoarthritis is mainly treated in primary care and the National Institute for Health and Clinical Excellence only recommend referral to specialist clinics for possible knee or hip replacement therapy when the joint is infected, causing severe disability, or discomfort is severe and causing other problems including mental health problems. (NICE, 2001, Policy document) The disease is often seen as part of natural ageing (NICE, 2008, Guide) and therefore not taken seriously.
- 7.6.2. A 2008 study from the English Longitudinal Study on Ageing (ELSA), comparing self reported care received in comparison with 32 quality of care indicators for adults aged 50 or over in England, found osteoarthritis to be the least well cared for condition with only 29% of quality of care indicators being achieved. (Steel et al, 2008, Large survey) As is the case for diabetes and osteoporosis, inadequate provision for osteoarthritis may be seen as a form of indirect age discrimination.

### *Summary*

NICE guidelines on referral for the treatment of osteoarthritis, which is primarily a disease of older age, appear at first glance quite restrictive in their access to treatment with implied rationing based on a points based system. These guidelines may be comparable in severity to other NICE guidelines but, if not, would be a clear case of indirect institutional age discrimination.

## *7.7. Parkinson's disease*

- 7.7.1. Parkinson's disease is the most common neurological disease and affects one in 1,000 in the UK. It is mainly a disease of older age with an average age of onset of around 60 years. There is currently no cure for Parkinson's. It is a long-term condition that can be managed and ameliorated with the help of carefully controlled medication. Treatment is mainly in primary care or as a hospital out-patient at a specialist clinic. Parkinson's sufferers may however become hospital in-patients for other reasons and under these circumstances there is evidence that the Parkinson's disease is often worsened by a hospital stay, as a result of a failure to keep to the medication regime. A 2004 survey of Parkinson's in-patients in a Sheffield hospital found that 70% experienced a delay in their medication and 81% experienced one or more dose omissions. (Elphick, 2005, Survey) A 2006 survey of Parkinson's disease nurse specialists by the Parkinson's Disease Society confirmed these findings with 9 out of 10 indicating that patients with Parkinson's disease experience clinical problems or unnecessarily long hospital stays as a result of missed medication. (BBC News, 2006 – referencing Parkinson's Disease Society, 2006, Small Survey)
  
- 7.7.2. Direct age discrimination in the treatment of Parkinson's disease occurs mainly in primary care with a 2001 Parkinson's Disease Society survey of GPs showing that 55% make a decision about whether or not to refer to a specialist on the basis of age. Older patients with Parkinson's disease are more likely to be prescribed the cheaper levodopa despite its long-term irreversible side effects. (Turner, 2006, Study) A more recent PDS member survey has shown widespread failings in service provision with 46% of patients never referred to physiotherapy, 63% not receiving speech and language therapy and 66% not being referred to an occupational therapist. (Parkinson's Disease Society, 2008, Large survey)

[See also *Ageism and age discrimination in primary and community health care in the United Kingdom* (Centre for Policy on Ageing, 2009, Review)]

### *Summary*

There is evidence of age discrimination in the referral of Parkinson's Disease patients to specialist care but, although Parkinson's Disease sufferers often receive inadequate hospital care, it is not clear that this is a form of age related discrimination.

## **8. Clinical trials**

- 8.1. A large number of studies have shown that one of the problems in prescribing for older people is that older people with a changed physiology and often with co-morbidity and associated polypharmacy have, in the past been excluded from drug trials. It has been common for drug trials to exclude people over 65 or 70. Many of the drugs which are successfully tested are then registered and become available for use. Healthcare professionals either do not prescribe the medications to those in the excluded age groups because of the lack of age-relevant data, or they prescribe off-label.  
(Rajapakse, Rajapakse and Playfer, 2008, Review; Birmingham, 2008, Study; Milton, Hill-Smith and Jackson, 2008, Study; Habicht, Witham and McMurdo, 2008, Study; Siu, 2007, Small survey; Butler, 2007, Review; Binns, Morkane and O'Mahoney, 2006, Review; Townsley et al, 2006, Survey; Rehwagen, 2005, Opinion; Crome and Natarajan, 2004, Opinion; Godlovitch, 2003, Opinion; Bayer and Fish, 2003, Opinion)
- 8.2. The situation has been improving. For example "The number of published randomized control trials (RCTs) with explicit age exclusions declined from 58% during 1966-1990 to 40% during 1991-2000. Trial enrolment of patients aged 75 years or older increased from 2% for studies published during 1996-1990 to 9% during 1991-2000 but remains well below their representation among all patients with myocardial infarction (37%) in the United States. "  
(Lee et al, 2001, Review)
- 8.3. The reasons for exclusion are increased cost (resulting from increased sample sizes to cope with the increased age spectrum and increased likelihood of drop-out through death plus likely increased cost per participant); the desire to keep assessment simple, avoiding co-

morbidities; changed drug metabolism in older people and a desire to protect vulnerable older people from research (Habicht, Witham and McMurdo, 2008, Study)

- 8.4. Habicht, Witham and McMurdo suggest a) legislation to ensure older people are properly represented in clinical trials b) changes to the regulatory frameworks controlling pharmaceutical and medical device licensing so that a licence would require evidence of effectiveness in the population for whom they are likely to be most commonly used c) extra funding as part of research grants to recruit larger sample sizes. (Habicht, Witham and McMurdo, 2008, Study)

#### *Summary*

The continued under-representation of older people in clinical trials, while improving, is a clear form of age discrimination outside the NHS which has a knock-on effect on available treatments for the older patient inside the NHS. Changes to the regulatory frameworks controlling pharmaceutical and medical device licensing might bring pressure for further improvement.

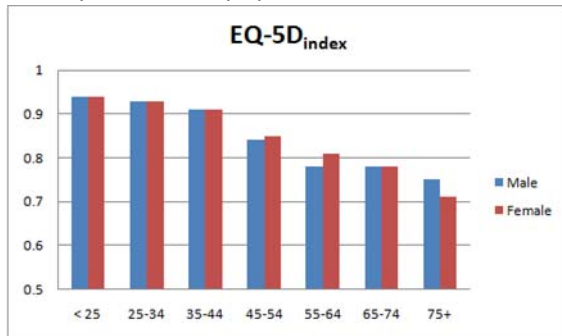
## **9. NICE guidelines and the use of QALYs**

- 9.1. As part of its process of 'technology appraisal' to assess the relative cost effectiveness of procedures and treatments, the National Institute for Health and Clinical Excellence (NICE) assesses the incremental cost effectiveness ratio (ICER) of the procedure or treatment ie the cost of each additional Quality Adjusted Life Year (QALY) generated by the treatment. The additional QALYs generated are calculated by multiplying the improvement in quality of life by the number of years for which it is effective and may result from an improvement in quality of life, an improvement in life expectancy or a combination of the two.

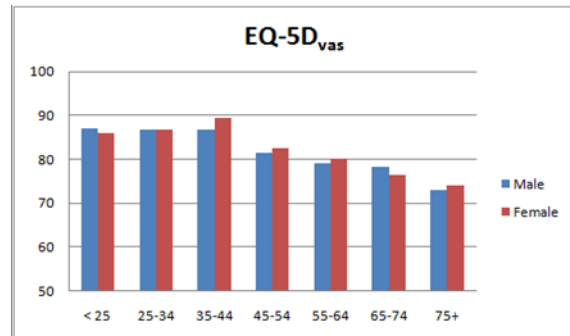
NICE recommends that wherever possible, health related quality of life be measured using the EuroQol 5-dimensional measure EQ-5D. (NICE, 2008, guide) EQ-5D is disease independent and measures mobility, self-care, daily activities, pain/discomfort and anxiety/depression. (Knapp, 2007, review). EQ-5D is reduced to a single value  $EQ-5D_{index}$  by weighting the three points on each of the 5 dimension scales. An associated analogue scale  $EQ-5D_{vas}$  may also be used. QALYs generated in the assessment can be affected by the

weights used in EQ-5D<sub>index</sub> (Parkin, Rice and Devlin, 2008), the severity of the condition being treated (National Collaborating Centre for Mental Health, 2007, guide) and the time horizon (the length of time for which treatment effects are considered) for the model in use. The UK population norm for EQ-5D<sub>index</sub> and EQ-5D<sub>vas</sub> declines with age. (Kind, 1999, study)

Quality of Life, UK population norms



n=3,395



Kind, 1999

9.2. The limitations of the EQ-5D measure and the resulting QALYs generated is recognised particularly in the area of mental health. ‘...the use of EQ-5D as the core measure of health state evaluation in the field of psychiatry seems less than fully convincing or appropriate’ (Knapp and Mangalore, 2007, Review)

In its submission to the 2009 Kennedy Review on valuing innovation, Arthritis Care state ‘The use of the narrow QALY measure as the overriding factor in determining access to technologies does not sufficiently take into account the diversity of service-user experience and the often significant gains that can make a real difference to someone’s actual quality of life.’ (Arthritis Care, 2009, review)

The Kennedy Review itself recognised the problems in using EQ-5D, ‘NICE is working with the EuroQol group to identify possible ways of improving the EQ-5D tool: it is accepted that this tool does not capture well, for example, diminution in quality of life consequent on sensory loss or impairment of cognition’, but was very supportive of the use of ICERs and the QALY in general ‘ I adopt as a starting point my firm conviction that the approach adopted by NICE is fundamentally sound. Indeed, I would go further and describe the ICER/QALY approach as quite simply the best tool available to do the job which NICE has been set’ (Kennedy, 2009, review)

In a response to the Kennedy Review, the Royal College of Nursing say ‘...quality of life is a complex concept and cannot easily be reduced to quantitative measure on an interval scale. Perceptions of the value of improvement in, for example, symptom control and the

sufferer's experience of duration mean that what is objectively a small gain in function for a relatively short time may be perceived as of considerable value for the patient. QALYs make no allowance for these factors.' (Royal College of Nursing, 2009, policy document)

- 9.3. For NICE '... a QALY gained or lost in respect of one disease is equivalent to a QALY gained or lost in respect of another. It also means that the weight given to the gain of a QALY is the same regardless of how many QALYs have already been enjoyed, how many are in prospect, the age or sex of the beneficiaries, their deservedness, and the extent to which the recipients are deprived in other respects than health.' (Rawlins and Culyer, 2004, review)  
'The QALY ... provides a "common currency" which allows different interventions to be compared for different conditions. This allows NICE to make its decisions consistently, transparently and fairly. Cost-utility analysis cannot, however, be the sole basis for NICE's decisions and the Institute expects its advisory bodies to use their judgement when considering the results of cost-effectiveness analyses.' (NICE, 2008, policy document)
- 9.4. It is generally accepted that because of lower life expectancy and higher levels of comorbidity, treatments and interventions for older people are less able to generate QALYs. 'Life expectancy is correlated with both age and the ability for a treatment to produce QALYs. Other things being equal, those who are older have lower life expectancy; and those with lower life expectancy are able to produce fewer QALYs.' (Edlin et al, 2008, Review)  
'Other things being equal the treatment of a patient with significant comorbidities will produce fewer QALYs than treating a patient in otherwise perfect health. Since older people suffer from more comorbidities than the young, their health gains will be lower on average.' (Edlin et al, 2008, Review)  
'...if the effects of treatment are expected to last for life, patients with a short life expectancy cannot expect to come out as favourably as those with long to live.' (Taylor, 2007, Study)
- 9.5. It has been argued that, because older people with lower life expectancy and higher levels of comorbidity are less able to generate QALYs, the QALY is inherently age discriminatory. 'It is the fact that younger people usually (though not always), have more life expectancy to gain from treatment that makes the QALY "inherently ageist".' (Harris, 2005, Opinion quoted in Taylor, 2007, Study)



- 9.6. Others argue that because of averaging, the effect of age on QALY league tables is reduced. 'The influence of age on QALY league table estimates is normally quite small because the estimates derive from averaging results from patients of different ages. Where a treatment is predominantly for older patients, the estimate would be affected by the lower life expectancy of the elderly...' (Dey and Fraser, 2000, Study)
- 'While the macro level use of CEA [cost-effectiveness analysis] greatly reduces the scope for age discrimination, it does not entirely remove it. The benefits to older people will still be lower and so treatments that mostly impact on an older population will still be affected by a generally lower ability to produce QALYs.' (Edlin, 2008, Review)
- 9.7. It is also argued that where a treatment is provided on a pay-as-you-go basis the marginal costs effectiveness will be the same at any age.
- '...provided costs and the health gains are the same, the incremental cost per QALY will be no different for a three year old than for an 83 year old. The QALY is not therefore inherently ageist...'
- '...the elderly might in theory be disadvantaged in the evaluation of an exceptionally expensive procedure, device, or drug (given as a single dose or a short course) whose health gain persists over a long period. A child aged three years would then be likely to enjoy more than 70 years of benefit compared to the additional five years that an 80 year old could expect. We cannot, though, think of a single example...' (Rawlins and Dillon, 2005, Opinion)
- 9.8. Whether the QALY is age discriminatory will depend on how it is used. For example, in a 1991 study to assess the effectiveness of total knee replacement (TKR) surgery, Drewett, Minns and Sibly calculate QALYs gained by multiplying the improvement in quality of life by the life expectancy of the patient. (Drewett, Minns and Sibly, 1991, Study) Clearly in such a calculation, because of lower life expectancy, a one-off treatment mainly used by older patients is less able to generate QALYs than a similar one-off treatment for younger patients. However we have not been able to locate an example of NICE using the QALY in this way either in its technology appraisals or as background for guidance.
- 9.9. 'NICE openly works to a utilitarian model, but this is not to say it endorses discrimination. The discretion applied after the application of the QALY and the other stages of appraisal are intended to account for this. ... NICE is applying utilitarian principles and then adapting them to conform to the egalitarian restrictions placed upon them by the NHS. ... adaptation and

even weighting of the QALY, can never fully reflect the principles supported by the NHS due to the differing ethical basis, and as such NICE should be cautious in applying the results of such a model in situations such as the current Alzheimer's controversy.' (Taylor, 2007, Study)

- 9.10. 'Some of the criticisms raised (particularly by John Harris) relate not to whether or not older people "produce" fewer QALYs but instead to the ethical relevance of any difference in outcome. This stance argues that patients have an inviolable right to health care that is not diminished by the size of the likely health benefit. If this basis is correct, then CEA [cost - effectiveness analysis] (whether using QALYs, life years gained, or any other measure) is a source of indirect age discrimination' (Edlin et al, 2008, Review)

### *Summary*

There is divided opinion over whether the QALY, the primary measure by which the National Institute for Health and Clinical Excellence (NICE) assesses the cost effectiveness of procedures and treatments, is inherently age discriminatory. While the suspicion might be that any benefit measure based on the number of years benefit gained will disadvantage treatments for the older patient, it is argued that incremental cost / benefit ratios will usually be the same at any age.

There would appear to be no age related ethical problems in the use of QALYs to assess the cost effectiveness of treatments applicable across all ages or to assess the relative cost effectiveness of a range of treatment options for patients of a particular age. The issue is whether the QALY is an ethically valid tool to assess the relative cost-effectiveness of a treatment only or mainly of value to older people against treatments for other conditions applicable to younger people or across all age ranges and set the incremental cost effectiveness ratio against a standard benchmark cost per QALY gained.

## 10. **Education and training**

- 10.1. There is a general consensus that a key element in 'rooting out ageism' in the NHS is appropriate education and training, both for existing staff and as part of pre-clinical training and education. (Williams, 2000, Opinion; Roberts, Robinson and Seymour, 2002, Survey; Levenson, 2003, Guide; Oliver, 2007, Opinion)

- 10.2. Ideas for work based training include a specially trained team of nurses, health care assistants, therapy staff and managers to act as older peoples' champions and advise others (Smy, 2004, Study) or bringing age awareness into the mainstream by using older people to provide training (Hopkins, 2005, Study)
- 10.3. 'The training and education of healthcare professionals needs to change to reflect the fact that their day-to-day role will increasingly centre on the care of older people with long-term conditions rather than younger patients with curable single conditions.' (Oliver, 2007, Opinion)

#### *Summary*

If, as seems likely, a root cause of age discrimination in the National Health Service is the cumulative effect of ageist attitudes among NHS staff, then pre-qualification and in-house education and training are key factors in 'rooting out ageism'. Medical staff need to be much more aware of the physiology and needs of the older patient.

## 11. **Conclusion**

- 11.1. Since the publication of the National Service Framework for Older People in 2001, cases of explicit, direct, age discrimination in secondary health care policy are rare. When age discrimination does occur it is either indirect, through the inadequate provision of services to meet the needs of older people or as a result of the cumulative effect of ageist attitudes by individual NHS staff.
- 11.2. Evidence of the under-investigation and under-treatment of older people in cancer care, cardiology and stroke is so widespread and strong that, even taking into account confounding factors such as frailty, co-morbidity and polypharmacy we must conclude that ageist attitudes are having an effect on overall investigation and treatment levels.
- 11.3. There is some evidence of ageist attitudes held by health practitioners and that doctors may be more ageist than other NHS staff but it may be that doctors are the ones most aware of the complexities in the treatment of older people. Ageist attitudes among medical staff may do no more than reflect ageist attitudes in society at large. Further research is required to

identify the underlying reasons for the clearly evidenced under-investigation and under-treatment of older patients.

- 11.4. Indications of indirect discrimination against older patients, through inadequate provision of necessary hospital services, are widespread but mainly anecdotal. It has been asked “How many anecdotes does it take to constitute evidence?” Inpatient surveys confirm continuing problems with the attitudes of medical staff, patient privacy, single-sex accommodation and the provision and serving of nutritious food.
- 11.5. Although there is evidence that older patients wait longer in accident and emergency departments this may be because they experience a higher proportion of hospital admissions following A&E. Evidence that this is a result of age discrimination in treatment is not conclusive.
- 11.6. Although age discrimination in the allocation of hospital critical care beds is often suspected, the evidence is inconclusive. There is evidence that a lower proportion of eligible older patients in need are admitted to high dependency and intensive care units but researchers do not see this as clear evidence of age discrimination.
- 11.7. Although most people die in hospital that is not where they want to die. There is firm evidence of the under-provision of appropriate palliative care and end-of-life care for older patients, particularly those who do not have cancer as their primary diagnosis. There is evidence of both direct and indirect age discrimination in this area
- 11.8. Although there is evidence that guidelines on resuscitation are often not being adhered to, despite suspicions, there is currently no firm evidence that resuscitation is being denied to patients on the basis of age rather than as a result of a clinical assessment.
- 11.9. Increasing rates of emergency readmission within one month of hospital discharge, with higher rates for older people than younger patients, is a cause for increasing concern. This may result from increasing rates of early discharge with inadequate planning for all patients but with the effect on older patients, who may take longer to recover from hospital procedures, being more pronounced. This may be an example of where a universally

applied policy is indirectly discriminatory against the older patient.

- 11.10. It is unclear, from the literature, whether the use of QALYs to assess the relative cost effectiveness of treatments and procedures, is inherently age discriminatory. There is a strong suspicion that, no matter how it is packaged, the use of Quality Adjusted Life Years to assess the relative cost effectiveness of treatments and procedures will discriminate against those procedures and treatments, for example for Alzheimer's Disease, Osteoarthritis, Osteoporosis or Macular Degeneration, that are mainly beneficial to older people with greater comorbidity and fewer remaining years. It is however argued that, on the contrary, treatments provided on a pay-as-you-go basis, without large up-front costs, have the same marginal cost / benefit trade-offs at any age.

While there appears to be no problem of age discrimination in the use of the QALY to compare the relative cost effectiveness of treatments applicable to all ages, or to compare the relative cost-effectiveness of alternative treatments of the same condition at any particular age, there may be problems of age discrimination in the use of QALYs to compare the costs effectiveness of the treatment of a condition such as Alzheimer's disease, which only or predominantly occurs in older age, against treatments of other conditions that occur in younger people or at all ages, by seeking to meet, in all cases, the same standard benchmark cost per QALY.

- 11.11. The key to eliminating age discrimination in the National Health Service is seen by many to be the raising of awareness of ageist attitudes through education and training both during the pre-qualification period and in post. 'The training and education of healthcare professionals needs to change to reflect the fact that their day-to-day role will increasingly centre on the care of older people with long-term conditions rather than younger patients with curable single conditions.' (Oliver, 2007, Opinion ) With older people forming an increasing proportion of patients, the physiological changes associated with ageing should receive increased emphasis in mainstream pre-clinical education and training for all medical staff.

## 12. **Recommendations for further study**

- 12.1. There is a need for a comprehensive UK study of ageist attitudes among medical staff, comparing different medical disciplines benchmarked against the attitudes of the general public, at different ages, to try to ascertain the root causes of ageism at the individual, clinical level.
- 12.2. There should be a review of medical school curricula and training courses for medical staff to ensure proper and adequate coverage of the physiology and needs of older people as major users of health services as well as appropriate awareness of ageism and direct and indirect age discrimination.
- 12.3. There is a need for a comprehensive, evidence based, review of older people's experiences in hospital from admission through to discharge and after-care planning, together with a study of post-hospital outcomes and readmission. The CQC 2008 survey of Accident and Emergency could be re-analysed to provide rapid access to comparative information on the experiences of older patients in A&E and the 2004 and later inpatient surveys could be rigorously re-analysed to show differences, including regional differences, in the experiences of older patients.

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