

# Is discrimination against older patients in the context of scarce health care resources ethically justifiable?

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Received: April 9th, 2018

Accepted: May 18th, 2018

Published online: June 22nd, 2018

## Abstract

It has been argued that due to the finite nature of health care resources and a perceived intergenerational competition for the constrained health resources between the young and elderly segments of the population, there should be an age-based rationing of health care resources in favour of the young. Nonetheless, the elderly have earned their rights to health care through their contributions to the society during their working years. It will, therefore, be an injustice to discriminate against them based on their healthcare needs more so at a time when they need it the most.

## Keywords

**Age-based rationing, healthcare resource, ageism, fair innings**

## Introduction

More people are now living longer and the rising elderly health care needs are becoming burdensome to the providers of health care services. There is a concern that this will affect the young population's share of health resources in a perceived intergenerational competition for finite resources. It is believed that age-based rationing will redistribute health care resources to protect the young members of the population.

Nonetheless, old age is a natural process and an essential part of life which every member of the society strive to reach. It is, therefore, counterintuitive and wicked to deprive the elderly of health care. Rather, the elderly should have an unfettered access to health care even in the face of diminishing health care resources.

This essay holds that discrimination against older patients because of scarce health care resources is not ethically justifiable. The essay will consider ethical and value-driven reasoning as well as the fair innings argument.

## Discussion

### Old Age, Health Care Resource, Health Care And Ethics

Globally, an individual is considered old on an attainment of a chronological age of 60 years in low-income or 65 years in high-income nations. [1] Chronological age is the duration an individual has lived from birth. Thus, the chronological age of Stone in years who was born in 2005 is 10 in 2015.

Contrastingly, biological (functional) age estimates the functional status of an individual and is valuable in assessing wellness of an individual compared to others. [2] It is a better indicator of the ageing process. [2] The word 'old or older' is also used in relative terms to indicate who has lived longer between two individuals even if less than 60-year-old. Therefore, the phrase 'older patients' in this essay is used either for a chronological age of 60 years and above, or in relative terms.

In health terms, chronological age is just a number that does not necessarily reflect the true state of health. Contrastingly, biological age is more reflective of the individual's true state of health. Consider six people and their chronological ages; Stone (10), Brown (30), Black (50), Green (60), White (70), and Paul (80). Chronologically, Brown (30) is older than Stone (10) though, both are young whereas White (70) is younger than Paul (80) though, both are old. However, it is plausible that the biological age of Black (50) and White (70) or Green (60) and Paul (80) would be the same or that of Brown (30) can be better than Stone's (10).

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Suppose Brown (30) and Green (60) both suffer from hypertension that would require treatment. It would be unfair to discriminate against Green on an account of the chronological age alone or choose to treat Brown instead on the premise that there are not enough resources to treat both Green and Brown. Moreso it is possible that Green's biological age is the same or better than Brown's. Besides, there might be other variables. For instance, the hypertension may not respond well to treatment in Brown's case compare to Green's.

Another variable is comorbidity in Brown that may adversely affect the outcome of the treatment compare with Green's where the outcome may be better. It remains a moral burden in a situation where Green is denied treatment having paid tax for 30 years but Brown is preferentially treated despite ever being dependent on the state.

While it is reasonable to treat healthcare personnel first (rather than using age-rationing), in a situation of finite health care resources, as when there are epidemics the healthcare personnel would, in turn, rescue more lives [3]. The same argument also holds in the military where combatants are treated first. [3] It is arguable that is unfair to use only age-based rationing to deny the chronological old, or older individual healthcare resources just because such resource is scarce. Doing so may not necessarily produce the desired benefit. For example, a chronologically old but biologically young individual may inadvertently be denied treatment that may be more beneficial to him than other who is chronologically young but biologically old. On a different note, health care involves the provision of medical and allied services towards good health. Health care resources essentially are human and material resources that are channelled towards the delivery of preventive, palliative, curative and rehabilitative care as appropriate.

Age-based rationing is a moral burden as it is against the intergenerational fairness of reciprocity. Admittedly, the elderly had received their entitlement as salaries or wages during their working years, nonetheless, they also paid taxes towards a societal good. The elderly plausibly have earned their health care, perhaps by paying for insurance, through a healthy lifestyle, or through productive working lives. The young and old generations owe each other a reciprocal obligation: the young generation was brought up by the old generation and therefore, should, in turn, take care of the old generation. The ideas of fairness may involve considerations of desert and need [4]. The potency of a desert is most obvious in relation to those injured in war as it is unreasonable to insist that the benefits of peace be enjoyed only by those too young to fight. In real life, people who need far more health care than others are not denied access due to the excuse that they have already had their share. If a compassionate society is judged by the degree to which it provides for its most vulnerable citizens, then, meeting the needs of the elderly should have a special claim to the societal scarce resource. [4]

The older generation through its contribution makes the society more habitable for the younger generation. The elderly have social worth as historians and custodians of tradition. The elderly are also potential donors of organs such as cornea, kidney, liver and heart. It would be unfair to allow the elderly to donate their organs to the young population while their health care is rationed to their peril. Age-based rationing would be an injustice to the elderly whose generation possibly discovered or invented or funded a particular technology with their taxes in the youthful years only to be denied

access to such when needed at their old age. [3] At the age of 40 years, Harold Ridley invented intraocular lens that revolutionises vision in cataract patients only to become a beneficiary of his own invention fifty years later [5].

The discrimination against older patients in the context of scarce health care resources is not ethically justifiable on account of the natural history of man. Human beings would fulfil their natural history by completing life phase which is a continuum. The life phase includes the conception and birth, growth and development, and adulthood and old age. Individuals and society strive to make citizens complete their natural life cycle. Thus, the sane society strives to provide the basic needs of life including health care to make people fulfil their natural life cycle.

The human natural life history is delicately balanced but strong and would guarantee a stable society. Age-based rationing is not only counterintuitive but against the ordered universe. The nature of human being is such that individuals in the two extremes of life, the minor and the aged, are naturally dependants part of the human race, and their welfare is so kept. Generally, the human system obeys this natural order without external prompting. Except on very rare and extreme situations akin to the survival of the fittest or a choice between life and death during an emergency, the strong part of the human race (even most other animal species) often nurtures and nurses the weak of its species. It is a fact of life that resources are limited but can be generated or mobilized towards meeting the healthcare needs.

Fairness demands equitable treatment for everybody even in the face of scarce resources. Weale [6] notes that 'everybody should count for one and no one for more than one'. It is ethically unjustifiable to predetermine that a life should be sacrificed just on account of being old. It is even more unreasonable and immoral in a circumstance when such an old individual is willing to live and when there is evidence that the application of such health care resources would be beneficial. Besides, it is unreasonable to discriminate against such old individuals even if such health care resource will only relieve pain.

Moreover, in a review of rationing by age, Nilstun and Ohlsson [7] consider the ethical issues raised by conflicts between equality, solidarity, liberty, and efficiency. The principle of equality states that differences between individuals do not justify unequal access to health care. [4] This implies that to ensure fairness/equality, age should not be a reason to deny a patient the health care.

On another note, the principle of solidarity refers to allocation on the basis of needs [4]. In healthcare situation, needs are usually seen as those which are life-threatening[4]. Age rationing is in conflict with prioritizing urgent needs. Suppose two people, a-30-year-old and a-60-year-old passengers sustain vehicular injuries and are brought into an accident and emergency unit. A healthcare policy discriminating against old people would provide care to the 30-year-old if available resources can treat only one of the two. This may not necessarily meet the principle of triage (the prioritization of care based on need) in an emergency medical care as the 60-year-old accident victim may actually need such health care resources to survive more than the 30-year-old. It is unethical to trade-off the life of the 60-year-old for 30-year-old even in a situation where both have an equal chance of survival just on age grounds. Interestingly, Callahan [8] holds that less priority should be given to prolonging life amongst the elderly. The Callahans and other similar views advocating age-based rationing are in conflict with prioritizing

urgent needs.

The principle of liberty refers to the right to self-determination [9]. An autonomous individual should be able to decide what treatment she wants. Age-based rationing violates the right of competent older patients to self-determination and it is unethical. The older patient has the right to live and by implication can exercise the fundamental right to seek beneficial treatment including from costly and scarce one. Even in conditions where older patients are incompetent, it is unacceptable to deny them health care just because they are old. Of course, it is unethical to enforce a policy against old patients without their consent even during scarcity. The coercive policy appears paternalistic which more often is used to protect selfish interests which would likely not be in the elderly's best interests. Age-based rationing impairing the elderly's freedom to access health care is unethical. Indeed, it is against the medical ethics to discriminate against patients on accounts of age, gender, religion, and race [9].

Furthermore, healthcare professionals are expected to do good and avoid harm to their patients [10]. It is not arguable that depriving of a patient a treatment that can relieve pain or cure a disease or prevent death implies doing harm to the patient. Expectedly, the Hippocratic doctors make the care of patients their first concern. The health care professionals would flourish through the act of beneficence to their patients, and not by callous and wicked acts.

Age-based rationing, even in the context of scarce health care resources, is unethical, as it attempts to enhance the health provision for the young population at the expense of the elderly. It is akin to replacing a lesser problem with a bigger one. This is so as health care is a basic need to both the old and the young populations. The fact that the old patients by nature carry more health burden suggests more health care needs compared with the young patients. Age-based rationing would only expose the elderly to needless suffering or deaths. This makes age-based rationing inhuman and unacceptable. It is morally repugnant to openly or covertly wish an individual a life of suffering or death simply because of the old age. It is equally unethical to discriminate, on grounds of scarcity, against the elderly as such amounts to disrespecting their persons. Age-based rationing trades-off the elderly's health care for that of the young generation making the elderly a means to achieving the health care ends of the young generation. By Kant's second formulation of the Categorical Imperative, no human being should be used just as only a means to an end but rather treated as an end. [11]

Age-based rationing is an injustice to the elderly based on theories of justice [9]. For instance, Hippocratic duty asserts that prioritizing the common good over the individual's is morally wrong [3]. It is morally wrong for age-based rationing to prioritise the health care of the young population over that of the elderly. Moreover, Aristotle exhorts to treat equals equally and unequals unequally according to morally relevant inequality [3]. The elderly who equally needs health care like the young individual is unequally treated in age-based-rationing.

Similarly, the utilitarian wants welfare for the greatest number but age rationing excluded the elderly [3]. Libertarianism asserts the right not to be killed and to possess property [3] but age-based rationing is covertly killing the elderly through denial of health care. Marxism directs to take from each according to ability and give to each according to need [3]. The elderly by nature require more health care than the young counterpart and should not be denied

healthcare through age-based rationing. Rawls's theory of justice prioritises the need (least well-off) rather than a consideration of age in allocating scarce healthcare resources. [12]

Ageing is an inbuilt mechanism that commences from fertilization and continues throughout life. Therefore, old age is a property distributed by the lottery of biological life and justice demands that it should not be a subject of discrimination. The 'fair-opportunity' argument holds that the attributes which individuals have no control over should not be a subject of discrimination between persons in social allocation [3]. Age, like race, gender, skin colour are beyond individual's control and it is morally unacceptable to deny the elderly health care on grounds of age. Rather, the 'fair-opportunity' argument requires that the elderly receive benefits that will ameliorate the unfortunate effects of life's lottery on their health, resource scarcity notwithstanding. [3]

### 'Fair Innings' Argument And 'Ageism' Cannot Justify Age-Based Rationing

The basis for age-based rationing has appeal in 'fair innings' argument which holds that greater equity could be achieved if some of the elderly were to forgo some health services in favour of the young. [4] The argument contends the elderly have already had a full life, whereas the young have not. It claims, the elderly already enjoy a disproportionate share of the allocated health care and the welfare resources. Therefore, health intervention should be redistributed to the young to equalize 'lifetime experiences of health'. [13] It is further thought that expending already scarce health care allocation on the aged would be unproductive as it would only secure marginal extensions to their life. The 'fair innings' argument has two forms, the first advocates a rationing that always favours the young [14] while the second form considers quality and only deny treatment to those who have lived a full life. [15] The argument maintains that for health care resources to be distributed fairly every person should receive sufficient health care to provide them with the opportunity to live in good health for a normal span of years. Nonetheless, the argument is faulty making age-based rationing unethical.

The concept of a full life and its equation with a prefixed chronological age, believed to be age 70, is unacceptable and lacks generalisability. For instance, some young mountaineers accept to risk early death in order to achieve their ambitions, whereas some old people would prefer life elongation to complete their life's work. [14] The valuation of life often focuses on moral concerns, a honest old judge is valued above a young drug addict, and has little connection with chronological age. The idea that the elderly have had their fill of life is less persuasive in such situations where people enjoy a worthwhile life.

The judgement on whether a life is full should be personal and subjective. An attempt to impose such judgement on the elderly is a breach of their personal autonomy. Moreover, it is unethical to predetermine an age after which an individual would be denied treatment without her consent. A life expectancy at birth being used as the normal span of life cannot ensure adequate grounds for the equal distribution of health care across and between generations. Rather, human lifespan is biologically limited and is related to the ageing process. A predetermined full life age is unreasonable as advances in science may soon prove the today's accepted natural lifespan as not natural after all. This would necessarily invalidate 'fair innings' argument lacking basis to justify denying the elderly health care resources because they would have lived longer than a prefixed

lifespan. [16]

The scarce resources and increasing health care cost for the elderly notwithstanding, age-based rationing is unethical. This is so as the perceived burden of the ageing population only becomes an object of scrutiny in the UK and the US because of change in economic policy towards more stringent control of state expenditures and political decision to control taxation [4]. The interest in age-based rationing also is fuelled by the claim that increasing elderly's crave for the latest medical treatments led to huge treatment costs. [4] It appears callous to selectively deny the elderly health care in an attempt to control the state expenditure.

Age-based rationing is believed to be fuelled by an argument that the elderly are merely unproductive consumers. Even if such reasoning is true for some elderly, it is very unfair to generalize it. It is a fact that many elderly have and are still contributing to the society. For instance, President Ronald Reagan of the United States and Nelson Mandela of South Africa provided the needed leadership to their countries at an old age. Many elderly have nurtured their orphaned grandchildren to adulthood in some HIV ravaged communities in Africa.

It is also believed that it is only in the US and the UK that the scarcity of healthcare resources have assumed notoriety and been blown out of proportion as some other countries have devoted a higher proportion of collective resources to health [17,18].

It has also been argued by Evans [19] that the UK healthcare resource is scarce because that is what the government desires. Evans position appears reasonable as the government has the capacity to mobilise more resources for health care. A situation where older patients are denied health care services under the pretext of scarce health care resources is unethical. It is doubtful if society can afford to compromise the health care needs of its elderly.

Nonetheless, the orchestrated scarcity in health care resources may indeed not be true in the real sense of it as Battin [20] doubts the effectiveness of many medical interventions and the bias in professionalized medicine towards intensive high-cost treatments and defensive forms of medicine. Battin's argument is understandable in the context of a need to do a careful appraisal of health care services so as to purge it of the inefficient and ineffective but costly services. This will save the society from financing very expensive medical services and technologies of questionable value to the healthcare thus reducing health care cost. However, it is immoral and double standard for society to fund costly medical technology in the young population and prohibits such for the elderly.

The 'fair innings' argument appears counterintuitive as it is akin to ambush on human longevity gains spanning the decades. Advances in medicine, agriculture, and technology have jointly improved human life expectancy. Age-based discrimination would mean health care has become a victim of its own success. It is a fact that advances in health care have contributed to the human longevity through control or treatment of communicable and non-communicable diseases which ordinarily would lead to premature death. Some of these diseases are suppressed over the years creating the impression that such diseases occur in old age. Additionally, there is a change in the pattern of illness and disease over the years creating the illusion that old age harbour most diseases. Old age unnecessarily becomes a scapegoat as mortality witnessed in old age is a termination of long-term morbidity. It is

society self-destruct should the elderly who are products of general improved life be subjected to health care rationing that plausibly would expose them to suffering or death. It is unfair to the elderly to be denied access to health care just because of the costs of illness and incapacity in the last phase of life. [20]

The argument that huge health care cost would be saved in rationing against the elderly appears to be a double standard. It is an open secret in health care that huge resources are expended on many futile treatments involving premature but extremely low birth weight newborns. The society often deploys staggering resources to the treatments of malformed infants which even sometimes end up as a mere experimental intervention. For instance, the separation of young conjoined twins often results in the death of both or one of the twins with a loss of a huge taxpayers' money. [21] It is disturbing to have the elderly selectively denied health care when both the young and the old alike do incur huge costs for health care system.

Moreover, it is not sacrosanct that any health care resource saved through age-based rationing would be made available for the healthcare of the young population. Such money can be diverted elsewhere like for prosecuting an unnecessary war. Even when such saving is expended on a worthy cause, it would still be unacceptable as the elderly have been unfairly treated by depriving them health care.

The health care is a basic life-long need for all the generations, the elderly and the young alike. It is unreasonable to expect the elderly to forgo health care services for the young population.

Meanwhile, a subtle form of 'fair innings' argument justifies age-based rationing in terms of redistribution of health care, not from the old generation to their young counterpart, but within an individual lifespan from one's old age to one's youth. [22] The argument considers a situation whereby an individual would expend her share of health care resources during her youth rather than conserve it till the old age. This form of 'fair innings' argument is impractical as life itself is a complex entity - it is based on an assumption that is not reflective of reality and the complexity of human life. Should it even be admitted that such argument is true for some individuals, it would generate some ethical issues? For instance, it would be unethical to impose such a decision on an individual without her consent. Also, there are individuals that would not need any significant healthcare throughout their youthful age and would require such care during their elderly life. Moreover, most people would plausibly want a situation they can get treatment at any age as condition dictates. Additionally, many may even prefer to defer health care to old age if they consider themselves not at risk of premature disability or death. [4] Nonetheless, Battin [20] argues that individuals may have cause to actually regret their earlier decision to deny themselves of treatment in old age. It is unacceptable to treat some people merely as means to satisfy other people's ends and to deny life to some to benefit others.

The discrimination against older patients in the context of scarce health care resources has appealed to a distasteful concept of 'ageism'. [23] An ageist attaches low value to the elderly. Butler [24] sees 'ageism' as 'systematic stereotyping and discrimination against people just because they are old'. There is compassionate 'ageism', which labelled the old as frail and victims in need of welfare services. [25] The conflictual 'ageism' sees the elderly as a burden in view of heavy demands on health and welfare

services [23]. Disturbingly, 'ageism' has been manipulated to create a power imbalance between the old and the professionals and politicians who provide services to the society. 'Ageism' like gender and racial discrimination is unethical and lacking in moral worth. It is unfortunate to view the elderly as a burden to the society. The proponents of 'ageism' can be mean and can defend their position with all possible means to socially devalue the elderly. [26] It is immoral to construct a policy of public importance on a reasoning that is not well thought out. It is unreasonable to use the 'ageism' concept as a decoy to deny the elderly healthcare service.

An age-based rationing in the context of scarce health care resources is unreasonable as a similar health care rationing based on gender (male against female), class (haves against have nots) and ability (able-bodied against disabled) would be. Moreover, Houtepen [27] holds that age-based rationing conflicts with the liberal ideal - which is a part of autonomy - of at least ensuring resources for the elderly so that they may lead their own lives regardless of the worth others attribute to those lives.

Finally, the discrimination against older patients in the context of scarce health care resources appears to focus on cost and a doubtful intergenerational care redistribution rather than overall welfare. A reasonable health care resource allocation should consider the need and capacity to benefit. Society should not excuse itself of healthcare responsibility to the elderly through a concept that overemphasises a natural and inherent weakness of the elderly. Rather, the society should ensure efficient economy, efficient health care delivery, and periodic review in healthcare allocation. Moreover, age-based rationing would necessarily mean the public failure to rise to the challenge of social needs. The scarcity of and high demand for healthcare resources are all facts of life. Resources have always been scarce and unlikely to be always adequate for our wants but when better managed would be enough for our needs. Of course, scarcity and surplus are dynamics of life. A society should strive to balance its demand and supply of healthcare through acceptable ethical means that value all lives, unlike age-based rationing that necessarily diminishes human dignity.

### Conclusion

This essay discussed the unethical nature of discrimination against older patients in the context of scarce healthcare resources. Age-based rationing lacks sound ethical basis. The chronological age being used in age-based rationing is not a true reflection of an individual's functional capability as a biological age would do. Equally, a predetermined age of full life lacks generalizability and is unacceptable.

The age-based rationing is against the orderly universe for any sane society as the young generation is expected to reciprocate the old generation which had nurtured it. Equality also demands that the differences between individuals do not justify unequal access to health care.

Solidarity requires allocation on the basis of needs and age-based rationing is in conflict with prioritizing urgent needs and the capacity of the patient to benefit. It is an injustice to the elderly based on the theories of justice as argued by Hippocratic's duty (individual versus the common good); Aristotle (treat equals equally and unequal unequally); utilitarian (welfare for the greatest number); libertarianism (the right not to be killed); Marxism (give to each according to need); and Rawls theory of justice (look after the least

well-off). Age-based rationing is against the elderly' right to self-determination, and it is selfishly paternalistic. It violates the principle of beneficence and non-maleficence. It attempts to use the elderly as a means to an end rather than being treated as an end. It is disrespectful to the elderly.

The 'fair innings' argument fails to justify age-based rationing as life and health care needs are more complex entities than the assumptions that the elderly have already had a full life and cannot continue to compete for health care to the detriment of the young population. The reason behind age-based rationing plausibly is a hoax that cannot ensure improved health care to the young generation. 'Ageism' is also a concept intended to excuse the society of meeting its responsibility to the elderly. Rather than imposing an unfair age-based rationing on the elderly, even during scarcity, more resources should be mobilized for the healthcare and there should be improved efficiency in the healthcare sector.

### Acknowledgement

Many thanks to Dr. Sorcha Ui Chonnachtaigh of Centre for Professional Ethics at Keele (PEAK), Keele University, Staffordshire, United Kingdom for her useful comments on the manuscript.

### REFERENCES

1. Evans J. Eye care for older people. *Comm Eye Health J* 2008;21(66): 21-23.
2. Bae CY, Kang YG, Kim S, Cho C, Kang HC, Yu BY, et al. Development of models for predicting biological age (BA) with physical, biochemical, and hormonal parameters. *Arch Gerontol Geriatr* 2008;47(2): 253-265.
3. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 2013, 7th ed. New York: Oxford University press, Pp:249-301.
4. Dey I, Fraser N. Age-Based Rationing in the Allocation of Health care. *J Ageing Health* 2000;12(4): 511-537.
5. Williams HP. "Sir Harold Ridley's vision". *Br J Ophthalmol* 2001;85(9):1022-1023. doi:10.1136/bjo.85.9.1022.
6. Weale A. The ethics of rationing. *Brit Med Bull* 1995;51(4): 831-841.
7. Nilstun T, Ohlsson R. Should health care be rationed by age? *Scand J Soc Med* 1995;23(2): 81-84.
8. Callahan D. *Setting limits: Medical goals in an ageing society*. 1987. New York: Simon & Schuster.
9. Gillon R. *Philosophical Medical Ethics*. 1985. John Wiley and Sons. Chichester, Pg: 9-93
10. Sokol DK. First do no harm" revisited. *BMJ* 2013;347:f6426. Retrieved on 25th May, 2017 from <https://doi.org/10.1136/bmj.f6426>
11. O'Neill O. *Kantian Ethics*, In: Singer P, ed. *A companion to ethics*. 1993. Oxford: Blackwell, Pp:175-185.
12. Papanikitas A. *Medical Ethics and Sociology*. 2013, 2nd ed. China: Elsevier, Pp:71-78.
13. Williams A. Rationing health care by age: The case for. *BMJ* 1997;314: 820-822.
14. Rivlin MM. Can age-based rationing of health care be morally justified? *Mt Sinai J Med* 1997;64(2):113-119.
15. Shaw AB. In defense of ageism. *J Med Ethics* 1994;20:188-191.
16. Farrant A. The 'fair innings' argument and increasing life spans. *J Med Ethics* 2009; 35: 53-56.
17. Almalki MG, Fitzgerald G, Clark M. Health care system in Saudi Arabia: An overview. *East Mediter Health J* 2011;17:784-93.
18. Anell A, Glengård AH, Merkur S. Sweden: Health system



- review. *Health Syst Transit* 2012;14:1-159.
19. Evans JG. Rationing health care by age: The case against. *BMJ* 1997;314: 822-825.
  20. Battin MP. Age rationing and the just distribution of health care: Is there a duty to die? *Ethics* 1987;97(X): 317-340.
  21. Thomasma DC, Muraskas J, Marshall PA, Myers T, Tomich P, O'Neill JA. The ethics of caring for conjoined twins: the Lakeberg twins. *Hastings Cent. Rep.* 1996;26(4): 4-12.
  22. Daniels N. Justice between age groups: Am I my parents' keeper? *Milbank Mem Fund Q Health and Society* 1983;61: 489-522.
  23. Kushe H, Singer P, eds. *Bioethics: An Antology*. 2006, 2nd ed. Oxford: Blackwell Publishing Ltd., Pp:406.
  24. Butler RN. Age-ism, another form of bigotry. *The Gerontologist* 1969;9: 243-246.
  25. Binstock RH, Post SG. Old age and the rationing of health care, In: Binstock R, Post S, eds. *Too old for health care? Controversies in medicine, law, economics, and ethics*, Baltimore, 1991. The Greens Hopkins University Press, Pp:1-12.
  26. Kapp MB. De facto health-care rationing by age: The law has no remedy. *J Legal Med* 1998;19: 232-249.
  27. Houtepen R. The meaning of old age and the distribution of health-care resources. *Ageing Soc.* 1995;15: 219-242.

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