Transgender Aging and the Care of the Elderly Transgendered Patient

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INTRODUCTION

Many transgendered persons who are now elderly did not have the opportunity to transition gender prior to old age, due to adverse social circumstances, family needs, lack of necessary medical services, or other reasons. As gender transition has become more socially acceptable in many countries, and related medical care more available, elders who were not able to transition in youth or middle adulthood are doing so during the later years. This chapter discusses the experience of elderly transgendered persons from a genontologic and primary care medical perspective.

As aging and successful aging have not been well-studied among older transgendered persons, some extrapolations must be made from the medical and social science literatures regarding non-transgendered elders and from general information regarding the human life cycle experience.

We begin with an illustrative case history, the story of “James,” who, following retirement and relocation in another city, was able to undertake gender transition and become “Susan”. Susan's late life journey illuminates many of the experiences and concerns of elderly transgendered persons, which are subsequently discussed.

Case History - James Retires from the Workforce and Becomes Susan.
Throughout most of his adult life, James lived in a mid-size Midwestern community, in which he worked as a skilled tradesman. Aware of his difference from an early age, James attempted to maintain a masculine facade, bolstered by traditionally masculine behaviors and life-style choices. (Susan later remarked, “James drank a lot in order to cope.”) He did not disclose his feelings of transgender identity, but married a woman with whom he was able to have a sympathetic and largely compassionate relationship. Following the death of his wife when he was 57 years old, James began to more seriously reflect on his self-perception and future possibilities. At the age of 61, James began estrogen therapy.

Prior to entry into a retirement community in a new city, James obtained a legal name change to Susan, and was issued a new driver's license with an updated photograph and designation as female. She obtained medical care both for gender transition and for treatment of hypertension and chronic lung disease. Susan did not share her history of having lived as a male, and easily made new female friends. She initially did not wish to pursue any surgical sex reassignment procedures. However, following full life-style transition and integration into the social milieu of the retirement community, Susan began to consider the possibility of entering into a sexual relationship, and including female genital lovemaking, if this were medically possible.

Susan underwent genital reconstruction surgery at the age of 63, supported by friends and family. Within a year, she formed a partnered relationship with an older bisexual woman whom she had met at church. Following the eventual breakup of that relationship, Susan moved to another retirement community, about 50 km from the first. She became active in religious service and civic volunteer work, and in teaching her hobbies to young people.

At the time of this writing, Susan is 72 years of age, active in her church and community. She has remained single, and is involved in many social relationships related to her volunteer and religious activities. She does not currently have friends who are transgendered; her own gender transition journey is not known to her friends and co-workers. With regard to her decision to pursue gender transition, she states, "It's brought
me a lot of heartache, but it's opened a lot of doors." Susan is a vibrant individual whose resilience is evident. Though her life course has been unusual, she is clearly aging successfully while making choices that are true to her heart.

DEMOGRAPHICS and EPIDEMIOLOGY

The world's population is living longer (Hawkins, 2005) and the proportion of older people is growing faster than that of any other age group. Approximately 600 million people worldwide are aged 60 years old or older. This number is expected to double by 2025, to 2 billion individuals, with 80% of them living in developing countries. Many of the countries with high rates of aging also contain cultural groups who gender-identify in non-traditional Western ways, such as members of some indigenous groups. (Langevin, 1983; Satterfield, 1988; Godlewski, 1988; Hoenig & Kenna, 1974; Kröhn et al., 1981; Kockett & Hahrner, 1988; Sigusch, 1991; Tsoi, 1988; van Kesteren et al., 1996; Walinder, 1971, 1972; Weitze & Osburg, 1996, Witten et al., 2003). Breadth of cultural competence is therefore important in transgender health care, particularly for physicians who practice in areas in which non-Western beliefs and practices are common. Physicians should remain aware of the possibility of culturally normative gender variance when discussing gender identity with their patients, especially with elderly persons, who are more likely to have retained traditional cultural beliefs and practices than are their younger peers.

SUCCESSFUL AGING AND ITS PREDICTORS: THE GERONTOLOGIC CONCEPT OF “AGING WELL”

As a greater proportion of the world-wide population is reaching older ages, it has become important to consider what it means to age well or to age successfully (Rowe & Kahn, 1997, 1998). Words and phrases like gero-transcendence (Wadensten & Carlsson, 2003; Tornstam, 2005), productive aging (Butler, 2002; Biggs, 2005), life satisfaction, robust aging (Garfein & Herzog, 1995; Menck, 2003), and creative aging (Holstein & Minkler, 2003) have become prominent in the gerontologic and geriatric literatures in recent years (Fisher & Specht, 1999). As research involving transgendered elders is
currently lacking, extrapolations must be made from the fundamental constructs of
successful aging in the non-transgendered population. The MacArthur Successful Aging
Project (Rowe & Kahn, 1995) concluded that “three factors have a major influence on
productive activity in older adults: 1) health and functional capacity, 2) social support
network, 3) personal characteristics. Fry et al. (1997) discuss the meaning of a “good old
age” from a multi-cultural standpoint. Although considerable cross-cultural variation
exists, physical health, mental effectiveness, material security, social resources and
relationships, and meaningful daily activity were seen as contributing to a “good old age”
in most studied groups (Maylahn et al, 2005).

Good physical health and functional status are factors that have been consistently
associated with aging well (Fry et al, 1997; von Faber et al., 2001; Tate, Lah, & Cuddy,
2003). The health benefits of physical activity and engagement in a healthy lifestyle on
numerous physical and psychological factors has been repeatedly documented in the
geriatric and gerontological literatures (DiPietro, 2001; Tager et al., 2004; Schectman &
Ory, 2001; Cournaya & Friedenrich, 1999; Rejeski & Mihalko, 2001). In two recent
articles, Satariano & McCauley (2003) and Li et al. (2005) propose that there is a multi-
level relationship between the environment and health-related behaviors. McCauley and
colleagues (McAuley & Blissmer, 2000; McAuley et al., 1994 and McAuley et al, 2003)
point out that self-efficacy is one of the strongest and most consistent determinants of
health behavior. Persons who have undertaken gender transition clearly possess
substantial self-efficacy in that regard. Whether this is present with respect to other
aspects of healthy living remains to be determined.

One of the central domains of “positive” aging is cognitive functioning. In particular,
successful aging revolves around the “ability to maintain the daily activities associated
with overall health (Hawkins, 2005).” Indicators of success in this domain include
measures of self-esteem, perceived control, resilience and mental well-being. Mild
cognitive impairment (MCI) is considered a transition state along a continuum between
normal cognitive aging and clinical dementia. Individuals identified with MCI have been
shown to have an annual conversion rate to dementia of 12-15%, significantly higher than the population conversion rate of 1-2% (Petersen, Smith, & Waring, 1999). Loss of cognitive abilities may be particularly devastating to transgendered elders because of the current lack of supportive care resources for transgendered persons, as is discussed below. Physicians should remain alert for signs of cognitive decline, and also emotional depression, among their elderly transgendered patients.

Individual identity in later ages is significantly influenced by the roles an individual fulfills in society. As Hawkins (2005) points out, “Retirement potentially removes a lifelong source of identity and may create multiple points of disturbance to a person's well-being.” It is to be hoped that elderly persons who are able to be open about having transitioned gender will gain some satisfaction in the later years through connections with transgendered youth, as well as through other, non-employment related activities.

The interplay of retirement and material security is also crucial. Material security has been consistently found to be an important component of aging well (Fry et al., 1997). As Hawkins remarks,

All individuals make decisions on the basis of providing for their basic needs (e.g., food, housing, safety) and for the basic needs of their families. When basic needs are unmet or compromised, personal health is compromised. The relationship between material security (conceived in broader terms than just income) and health is fundamental to aging well (Hawkins, 2005).

Transgendered elders may be at higher risk for economic insecurity than their non-transgendered peers, due to mid-life events such as the loss of employment during gender transition, or subsequent workplace discrimination. Legal protections regarding employment discrimination and partner benefits remain inadequate in most countries.

TRANSGENDER AGING AND HEALTHCARE
The case of Susan (nee James) illustrates many of the decisions and difficulties confronted by individuals who undertake gender transition in later life. Older transitioning persons face different challenges than their younger peers, and also possess certain advantages. Quality of life is affected by a constellation of medical and social considerations, which are both similar and dissimilar to those encountered by non-transsexual elderly persons.

General Medical Care

Despite the increased medical risks that may accompany gender transition for older persons, the physical (morphological) realities of aging may actually facilitate social gender transition. For example, women and men share more physical similarity during the elder years than at any time since childhood. Loss of facial skin tone produces a softer appearance for many natal males (as it did in Susan’s case), and the natural diminishment of circulating estrogens, accompanied by a shift towards androgenization of the hair follicles, facilitates the production of light new beard growth in natal women. Furthermore, the loss of muscle mass and increased body fat content which is experienced by both male and female elders often results in phenotypic gender convergence of the body habitus (i.e. women and men appear more alike than previously with regard to body fat distribution, girth and posture). Physical functioning, such as that required for the performance of the usual activities of daily living, is generally unaffected by gender transition, though androgen supplementation will result in increased muscle mass and often physical robustness. Post-operative recovery is usually a more lengthy process among older persons than their younger peers.

Despite the potential benefits of aging with regard to social transition, persons who undertake gender transition during mid-life or the elder years are more likely than their younger peers to experience difficulties related to physical health status and its effect on the medical aspects of transition. Ill health may limit surgical eligibility (as discussed below) and use of higher dose hormone regimens. Nonetheless, most medical care needs are the same for elderly persons, regardless of gender or gender transition status. In many ways, the health care experience of women and men becomes more similar after the
childbearing years. Emphasis is placed on preventive care, early detection of treatable disease, and maintenance of physical and mental functioning during the later years. Encouragement of physical activity and smoking cessation; normalization of blood pressure, serum glucose and lipids; screening for non-genital cancers, and many other aspects of routine care are essentially the same for women and men, whether or not they have previously transitioned gender.

The routine medical care of transgendered elderly persons does not differ from that of their non-transgendered peers in most respects. The evidence-based recommendations of the United States Preventive Services Task Force, or similar guidelines, should be followed in most respects. Screening for sex-specific cancers, and osteoporosis prevention, are two aspects of care that are substantially affected by the gender transition process.

Hormonal Treatment

The use of hormonal preparations is also affected by the aging process. While much is known about pharmacologic and hormonal changes of aging (Roberts et al., 1996; McLean & LeCouteur, 2004; Timiras et al., 1995), research involving transgendered elderly persons using hormones is extremely scant. Only recently has research involving large samples been conducted with regard to the morbidity and mortality rates for transsexual persons using cross-hormonal treatment (Asscherman et al., 1989; van Kesteren et al., 1998), and few of those study participants were elderly individuals who had been using supplemental androgens or estrogens for extended periods of time.

Until additional research is conducted regarding transgender health care, and more specifically the care of elderly transgendered persons, physicians must “extrapolate” from evidence-based recommendations regarding care of non-transgendered geriatric patients. A general guideline is to consider both the usual effects of hormone supplementation for non-transgendered patients and the medical characteristics of the individual transgendered person. For example, the risks of estrogen use among non-transsexual
women increase with age, and it is very likely that transsexual women are similarly affected. Therefore, beginning estrogen supplementation for an older male-to-female patient with known coronary artery disease should be undertaken with extreme caution. Similarly, androgen supplementation has been associated with a variety of risks in elderly natal males, and should be used cautiously when the patient has pre-existing conditions such as sodium and fluid-retention sensitive renal disease or elevated serum hemoglobin. Specific considerations regarding the use of estrogens and androgens are discussed below.

[Insert boxes 4 and 5 about here.]

Estrogen Supplementation

Due to the current lack of data regarding the clinical experience of older transsexual women, estrogen use in this population must be considered in light of information gained from the study of post-menopausal estrogen supplementation among non-transsexual women.

The use of supplemental estrogen by older non-transsexual women is currently a matter of clinical controversy. For decades, it was believed that the longer average life expectancy enjoyed by women, relative to men, was in large part due to hormonal factors: higher levels of estrogen production, lower testosterone, or both. Therefore, it was argued, supplementing estrogen following the menopausal decline would continue this physiological advantage, reducing the risk of cardiovascular disease and prolonging life. In vitro evidence had demonstrated salutary effects of estrogen on physiological processes known to affect vascular functioning, such as the renin-angiotensin system, nitrous oxide synthesis and secretion, etc. Available clinical data, including the Nurses’ Health Study (a prospective cohort study, including 70,533 nurses, 20 year observational data; Grodstein et al, 2001) supported this theory, at least in part.

Subsequent data from randomized, controlled trials contradicted this viewpoint. The Heart and Estrogen/Progestin Replacement Study (HERS) trial failed to demonstrate any cardiovascular benefit—and found a probable increased risk—among women with pre-
existing coronary artery disease and taking estrogen and progestins post-menopausally (Grady et al, 2002; Roussouw et al, 2002). The Womens’ Health Initiative (WHI) trial studied the effects of hormone use among post-menopausal women without known cardiovascular disease. An increased risk of cardiac events was detected in the combined estrogen-progestin arm of the trial, while the estrogen only arm found no increase in cardiac events, but an increase in cerebrovascular events (The Women’s Health Initiative Steering Committee, 2004). (Some benefits of estrogen use were also detected, including reduced risk of colon cancer and osteoporosis.) Following publication of these results, estrogen supplementation was no longer recommended for either primary or secondary prevention of coronary artery disease among post-menopausal women, and women taking estrogen were encouraged to discontinue its use.

The HERS and WHI conclusions have been challenged on numerous methodologic grounds. (See Speroff & Fritz, 2005, pp. 689-777, for discussion of the data and controversies regarding post-menopausal estrogen use.) Current concerns that pertain directly to the treatment of older transsexual women include questions regarding age at onset of estrogen use, type of estrogen used, route of administration, and concurrent risk factors, particularly smoking.

Age at onset of use: Although the average age of menopause in the United States is 51 years, the average age of enrollees in the WHI trial was 63.3 years; 25% of participants were 70-79 years of age. It has been suggested (Phillips & Langer, 2005; Speroff & Fritz, 2005; others) that estrogen plays a beneficial role in preventing the formation of vascular plaque, but may have deleterious effects (e.g. increased likelihood of erosion and rupture) on existing plaque. Therefore, estrogen use begun at younger ages, such as at the time of menopause, when cardiovascular plaque would usually not yet be well-established, might have primary preventive benefit with regard to the development of cardiovascular disease. Recent re-analysis of the Nurses’ Health Study data has supported the possibility that timing of hormone replacement therapy initiation, in relation to age, influences coronary risk (Grodstein et al, 2006). Sub-analysis of the WHI data also revealed that among women aged 50-59, coronary events were less common in the group using estrogen than those taking a placebo (Hsia et al, 2006).
Speroff and Fritz conclude:

The cardiovascular results over the last few years support an emerging theme. The theme is: Healthy endothelium is needed to respond to estrogen...the vasodilatory effects of estrogen dissipate with increasing age. By the time the endothelium is involved with atherosclerosis, it is too late for estrogen to exert a beneficial effect...And there continues to be good reason (a combination of biologic data and uniform agreement in a large number of observational studies) to believe that hormone therapy can have a beneficial role in the primary prevention of coronary heart disease. (Ibid, p. 733)

Although the effects of estrogen on the cardiovascular system have not been well-studied among natal males, it is probable, or at least possible, that similar findings will emerge. Transsexual women who have not had the opportunity to undertake gender transition at younger ages will likely have the same clinical experience as their natal female peers who begin estrogen use at advanced ages.

Type, route and dosing of the hormonal preparation: Both the HERS and WHI trials utilized conjugated equine estrogens (CEE) which were administered orally. It has been suggested that transdermal administration may be associated with a lower thrombogenic risk (due to differences in hepatic metabolism), as might the use of other estrogen compounds, principally 17-beta-estradiol (E2). Relatively small studies measuring physiologic endpoints have suggested an increased thrombotic risk among women taking oral CEE but not among those using transdermal E2 (Vongpatanasin et al, 2003) and a greater reduction in measures reflecting vascular sympathetic tone among smokers using transdermal E2 relative to those using oral CEE (Girdler et al, 2004). These findings suggest that transdermal, rather than oral, estrogen preparations should be used by women taking hormonal supplementation. However, these studies utilized different estrogen compounds, as well as different routes of administration.

In a small study of hormonal treatment among transsexual women, Toorians et al measured the effects of cyproterone acetate (CPA) alone, vs. CPA in combination with
transdermal E2, oral ethinyl estradiol (EE) or oral E2, on a number of homeostatic variables associated with venous thromboembolism (Toorians et al, 2003). Although the other regimens produced only small effects on the measured variables, oral EE administration produced significant deleterious effects on activated protein C resistance, plasma protein C, and total and free plasma protein S. The authors conclude that “... the prothrombotic effect of EE is due to its molecular structure rather than to a first-pass liver effect...these differences may explain why M→F transsexuals treated with oral EE are exposed to a higher thrombotic risk than transsexuals treated with [transdermal] E2.”

Changes in the type of estrogen program used probably explain the observed decline in thromboembolic events and all cause mortality observed among transsexual women, over time, in the relatively large sample Dutch data (Asscheman et al, 1989; van Kesteren et al, 1997). Although data regarding elderly transsexual women, followed over long periods of time, is still very scant, it is encouraging that observed mortality in the second study (van Kesteren et al, 1997) was not in excess of expected general Dutch population norms.

Concurrent health risks: Cigarette smoking is the greatest modifiable risk factor for cardiovascular disease and thromboembolic events. *Patients who use estrogens should not smoke.* This is particularly important in the middle and older adult years, as the risk of these conditions rises with age. Other risk factors for estrogen-associated morbidity and mortality, particularly among the elderly, include uncontrolled hypertension, pathologic hypercoagulable states, any history of thromboembolic disease, uncontrolled diabetes mellitus, atypical migraine syndromes, and the use of unusually complicated pharmacologic regimens.

Although additional clinical research regarding the use of hormonal treatments by elderly transsexual women is clearly needed, current information suggests the following recommendations:

1) Treatment with estrogen during mid-life and the later years is associated with significant benefits and medical risks. Patients should be advised of the risks, benefits
and possible side-effects of estrogen use, and assisted in making an informed decision about its use.

2) Transsexual women who begin hormonal treatment in mid-life or at later ages should be evaluated for indications of cardiovascular disease, glucose intolerance, and other chronic conditions which may be worsened by the use of estrogen.

3) Estrogen preparations should be used with extreme caution, or not at all, by older transsexual women with uncontrolled concurrent health risks.

4) Elderly transsexual women wishing to begin treatment with estrogen should be advised of the potential complications of estrogen supplementation, particularly with regard to possible destabilization of occult vascular plaque.

5) Minimum, clinically adequate estrogen doses should be used. There is no evidence to support the use of high doses of either estrogens or androgens for elderly persons.

6) When possible, transdermal 17-beta-estradiol preparations are preferred.

7) Transsexual women who use estrogen should not smoke. This is particularly important in the later years. Physicians should assist their older patients in smoking cessation.

[Insert BOX 6 about here.]

Androgen Supplementation

Androgen supplementation among non-transsexual men is currently controversial (Darby 2005; Snyder, 2004; others) and data regarding testosterone use by elderly transsexual men is scant. Testosterone production in natal males declines slowly from mid-life through old age, eventually by about 50%. Average serum testosterone levels among 30 year-old men are about 600 ng/dl, or 20.8 nmol/l; mean values for 80 year-old men are
approximately 400 ng/dl, or 13.9 nmol/l. This “andropause” results in a decrease in muscle strength and mass, bone strength (though it is primarily the androgen-derived estrogen that maintains bone density), erythrocytosis, and subjective well-being. Frailty often increases over time.

Androgen replacement has been suggested as a means of maintaining vigor and robustness among elderly men. However, because of the associated risks, androgen supplementation is not recommended for routine use by most relevant professional bodies (e.g. United States Institute of Medicine, Endocrine Society of Australia, others). Supplemental testosterone is used primarily in deficiency states accompanied by clinical evidence of resultant problems (Conway et al, 2000), particularly if the morning serum testosterone level falls below 300 ng/dL (ASA Position Statement, 2006). Some authors use 200 ng/dL as the value below which men should be considered hypogonadal, regardless of age and other factors (reviewed in Wald et al, 2006).

Elderly transsexual men require ongoing testosterone supplementation, particularly if oophorectomy has been performed. At present, little data is available regarding optimal androgen dosing, monitoring, etc. in this population. Initiation of androgen use in the elder years, for the purpose of gender transition, is even less common than continuation of treatment begun earlier in the life course. Clinical considerations are therefore based on experience with testosterone use by non-transsexual men.

Risks associated with supplemental testosterone use: Research among non-transsexual men using supplemental testosterone has identified the following side effects and health risks: acne and oily skin; breast enlargement and tenderness, especially early in treatment; fluid retention and peripheral edema; sleep apnea, worsening of prostate disease (fortunately not a consideration for transsexual men); the development of polycythemia (considered in detail below), and possibly negative effects on androgen sensitive epilepsy and some migrainoid conditions (reviewed in ASA Position Statement, 2006; Conway et al, 2000; Wald et al, 2006).
Some authors consider a personal history of breast (or prostate) cancer to be an absolute contraindication to use of supplemental testosterone (Conway et al, 2000). Relative contraindications include chronic obstructive pulmonary disease, particularly among patients who are overweight or who smoke tobacco (Wald et al) and renal or cardiac conditions (e.g. congestive heart failure, uncontrolled hypertension) that may be worsened by temporary fluid expansion (Conway et al, 2000). The presence of sleep apnea, migraine and epileptic syndromes should be taken into account in clinical decision making.

Though cardiac effects, in the absence of significant existing disease, have generally been neutral overall (Tan & Salazar, 2004), the long-term impact of testosterone on cardiovascular disease remains unknown (Tenover, 1999, reiterated in Wald et al, 2006). Testosterone increases thrombogenicity and platelet aggregation, though the AACE Hypogonadism Task Force has noted that resultant clinical problems have not been found among natal males receiving replacement doses of testosterone (AACE, 2002). Whether this is equally true among transsexual men is unknown. Supratherapeutic androgen administration, such as is sometimes used by male bodybuilders, is associated with cardiac disease and other serious complications, and is thoroughly contraindicated for both transsexual men and natal males.

Polycythemia: Testosterone supplementation results in increased erythrocyte production in both natal females and natal males. Although this may provide therapeutic benefit to elderly persons suffering from decreased erythropoiesis, occasionally hemoglobin and hematocrit elevate to pathologic levels, particularly if the serum testosterone is above the usual male range. Arterial and venous thromboembolic events may ensue, particularly if other cardiac risk factors (especially smoking) are present (Hachulia et al, 2000). Elderly patients are at higher risk due to the vascular changes that accompany the aging process. Wald et al note that, “The main risk factor for polycythemia with testosterone administration appears to be age, and the incidence of this risk factor was reported to be higher with intramuscular rather than transdermal preparations.” (Wald et al, 20006, p. 129)
Older female-to-male patients should be advised about the possible consequences of polycythemia, and should have hemoglobin and hematocrit monitored periodically. Annual evaluation may suffice when the testosterone dosage and hematocrit have stabilized over time; more frequent monitoring should be obtained earlier in the treatment process. The American Society of Andrology (ASA) recommends physical examination and hematocrit determination prior to initiation of treatment and at 3, 6 and 12 months, then annually thereafter (ASA Position Statement, 2006). Hematocrit monitoring every 6 months for at least the first 18 months has also been recommended (Wald et al, 2006). Reduction in testosterone dosage, or a moratorium on supplementation, is usually required when hemoglobin and hematocrit elevate to, or above, the upper limit of the normal male range (52% by ASA guidelines, Ibid, p. 133).

Female-to-male transsexual patients who develop polycythemia should be treated in the same way as non-transsexual men who develop this condition while using androgen supplementation for treatment of hypogonadism. When hematocrit elevates above 54%, phlebotomy should be undertaken to reduce it below 45%, in order to prevent vascular occlusive complications (Pearson & Messinezy, 2001). Actual polycythemia vera may be insufficiently responsive to phlebotomy alone and may require treatment with chemotherapy.

Choice of testosterone preparation: Testosterone can be administered by a variety of routes, including transdermally, intramuscularly, orally and buccally.

Hepatic dysfunction and malignancies have previously been observed among men using oral testosterone preparations (Nieschlag & Behre, 1998) though a newer preparation of testosterone undecanoate dissolved in castor oil appears to be acceptably safe (Gooren & Bunck, 2004) and is currently used in Canada and parts of Europe.

Although intramuscular testosterone preparations have long been the mainstay of female-to-male hormonal treatment, other routes of administration, particularly the transdermal patches and gels, offer some advantages in the treatment of elderly patients. Elderly persons generally exhibit lesser muscle mass than their younger peers, and may
experience more difficulties with injection pain and other sequellae. Transdermal administration also provides less variability in average testosterone levels than most injection programs. Among natal males, transdermal patches, applied nightly, produce a mean total testosterone profile that mimics the male circadian pattern (Mazer et al, 2005). Some patients can not tolerate the dermal irritation that the patch can produce; this may be a greater problem among older patients because of age-associated dermal changes. Topical testosterone gel does not produce the circadian pattern associated with patch use (Mazer et al, 2005) but is easy to use and is generally well accepted by female-to-male patients (Feldman, 2005).

Buccal testosterone administration also appears to be safe and effective (Dobs et al, 2004) though its role in the treatment of older patients, who are more likely than their younger peers to experience problems maintaining oral health, remains to be determined.

Although additional clinical research regarding use of hormonal treatments by elderly transsexual men is clearly needed, current information suggests the following recommendations:

1) Treatment with androgens during mid-life and the later years is associated with significant benefits and medical risks. Patients should be advised of the risks, benefits and possible side-effects of androgen use, and assisted in making an informed decision about its use.

2) Transsexual men who begin hormonal treatment in mid-life or at later ages should be evaluated for indications of cardiovascular disease, chronic obstructive pulmonary disease, polycythemia and other chronic conditions which may be worsened by the use of testosterone.

3) Androgens should be used with extreme caution, or not at all, by older transsexual men with uncontrolled concurrent health risks, particularly polycythemia, conditions susceptible to worsening from fluid overload due to sodium and fluid retention (cardiac or renal disease, uncontrolled hypertension), or a history of breast cancer.
4) Elderly transsexual men wishing to begin treatment with testosterone should be advised of the fact that optimum use of androgen supplementation is not yet well understood, but that doses resulting in modest serum levels (i.e., not above the norms for natal males of similar age) should be used.

5) Hemoglobin levels should be monitored periodically (at least annually when therapy is well-established) among both transsexual and non-transsexual men who use supplemental androgens. (See Darby, 2005, re: treatment of non-transsexual male hypogonadism.)

6) When possible, transdermal preparations (gel or patches) should be used.

7) Transsexual men who use androgens should not smoke. This is particularly important in the later years. Physicians should assist their older patients in smoking cessation.

[Surgery]

Research regarding the surgical experience of elderly transsexual patients is scant. Many outcome studies have included small numbers of elderly participants, but none has specifically evaluated the experience of this population. Older age at the time of sex reassignment surgery has been associated with an increased likelihood of dissatisfaction or regret following male-to-female genital surgery in several studies (Eldh, Berg & Gustafsson, 1997; Lindemalm et al, 1987; Rubin 1993; others) though not in others (Krege et al, 2001; Kuiper & Cohen-Kettenis, 1988; Landen et al, 1998; Lawrence, 2003; others), though regrets have generally been uncommon overall. However, even the larger studies with “older” enrollees have included few participants over age 65. For example, in Lawrence’s work involving 232 male-to-female transsexual adults (Lawrence, 2003) mean age at the time of surgery was 44 years with standard deviation 9 years. Documentation of the experience of older female-to-male individuals is even more limited. Therefore, the current approach to sex reassignment surgery among elderly persons is based on extrapolation from the surgical experience of older adults undergoing other surgical procedures and from the emotional experience of younger adults.
Anecdotal information suggests that the results of genital surgery for elderly transsexual patients are often not as good as those achieved by younger persons, due to the relative lack of tissue distensibility, the age-related genital shrinkage that may have occurred prior to initiation of hormonal supplementation, and the loss of tissue tone (Kuzon, Wilson, others). Nonetheless, transsexual elders may experience the same emotional relief of gender dysphoria and sense of completion as their younger peers. For many older persons, the joy of personal fulfillment is tempered by regret that opportunity for gender transition, including gender confirmation surgery, did not arise until so late in the life course.

Decisions regarding candidacy for the surgical procedures associated with gender transition are made on the basis of the health status of the patient, rather than on the basis of chronological age, per se. Elderly patients who are in good health may be reasonable candidates for genital surgery, though a thorough pre-operative evaluation should be performed. Medical and surgical history, current cardiovascular health status, and complexity of the planned procedure, including estimated anesthesia time, cardiovascular stress, physiologic fluid shifting, etc. should be weighed by the patient’s personal physician and anesthesiologist. (See King, 2000, and Rothe et al, 2003, regarding pre-operative evaluation of surgical risk.) Genital surgeries are usually scheduled far in advance of the surgery date, allowing ample opportunity for cardiopulmonary evaluation to be conducted on an outpatient basis during the months prior to the planned procedure.

Patients who are unable to undergo genital surgery due to lack of medical fitness may be appropriate candidates for less extensive procedures, such as breast augmentation mammoplasty and facial cosmetic surgery. For some male-to-female patients, facial surgery may provide as much benefit with regard to social integration as genital surgery (Hage et al, 1997), though specific data regarding elderly persons is lacking in this regard. For any surgical procedure, pre-surgical risk assessment should be performed according to evidence based guidelines, with an emphasis on the balance between the anticipated cardiovascular demand of the procedure and the physiologic reserve of the patient.
Post-surgical recovery times generally lengthen with aging. Older persons undergoing surgery usually need more in-home support during the weeks following surgery than their younger peers. Assessing the degree of family support and other resources available is a crucial aspect of the surgical planning process, particularly in the United States, where hospitalizations are often relatively brief, and much post-surgical recovery and care occurs in the home setting. The recovery process may be further complicated if empathic, non-judgmental personal care assistants are not available during the post-operative period.

[Insert Box 8 about here.]

Osteoporosis

Osteoporosis is a medical condition which is of particular concern to elderly transsexual women and transsexual men, because of the crucial role of sex steroids in maintaining bone density. Osteoporosis is a common and painful condition. In the United States, 16% of women and 5% of men over age 50 will experience at least one vertebral fracture; 18% of women and 6% of men will experience at least one hip fracture. Fractures are less common among men because of the greater baseline adult bone mass and the slower decline in sex steroid production with aging. However, osteoporosis among men is increasing as men live to older ages.

Osteoporosis has been reported among both transsexual women and transsexual men, though there has as yet been little systematic study of this condition in the transsexual population. Several small studies have indicated an increased risk of bone demineralization among both male-to-female patients who did not receive (or did not comply with) adequate estrogen replacement (Hierl et al, 1999; Ruetsche et al, 2005) and among female-to-male patients following oophorectomy (van Kesteren et al, 1998). Other studies (Mueller et al, 2005; Reutchakul et al, 1998; Schlatterer et al, 1998; Sosa et al, 2003; Turner et al, 2004) have found mean bone densities at or above the usual range for age and natal sex, though these have utilized relatively short follow-up intervals and have included few elderly participants. One study with longer follow-up—mean 12.5
years for 24 male-to-female participants and 7.6 years for 15 female-to-male participants—found bone densities at or above expected norms, except for 5 cases of osteoporosis among male-to-female patients who did not comply with hormonal treatment (Ruetsche et al, 2005).

As is the case among non-transsexual middle-aged and elderly persons, hormone deprivation appears to be a primary risk factor for the development of osteoporosis among both male-to-female and female-to-male transsexual patients. Serum LH levels may provide the best predictor of adequacy of hormone replacement for osteoporosis prevention (van Kesteren et al, 1998).

Until specific guidelines for the prevention and treatment of osteoporosis among transsexual patients become available, the following recommendations can be made:

1) Physicians should remain alert for the possibility of bone mineral loss among their transsexual patients, particularly those with risk factors for the development of this condition (advanced age, smoking, treatment with anti-inflammatory steroid medications, etc.).

2) Transsexual patients, particularly those who have received oophorectomy or orchiectomy, should be advised of the risk of subsequent bone demineralization, and advised to adhere to hormonal treatment over time.

3) All patients should be advised to reduce their risk of osteoporosis development through lifestyle modification: smoking cessation, limited alcohol use, weight bearing exercise.

4) Calcium and vitamin D supplementation should be advised for middle-aged and older persons at risk for osteoporosis unless it is otherwise contraindicated (e.g. renal disease, recurrent nephrolithiasis).

5) If hormonal supplementation becomes unfeasible (e.g. for the elderly patient who develops a hormone-responsive malignancy) then bone mineral density should be
monitored and alternate treatments (i.e. bisphosphonates, calcitonin, parathormone agonists) considered.

6) Serum LH levels may provide the best predictor of adequacy of hormone supplementation. Densitometry should be interpreted with natal sex norms, and followed over time when clinically indicated.

7) In all cases, the minimum adequate dose of estrogen or testosterone should be used, as there is no evidence to support the use of high dose hormonal supplementation among elderly persons of either sex.

HIV in Later Life

The presence of HIV/AIDS in the transgendered population has been a matter of increasing concern (Nemoto et al., 2005; Pisani et al. 2005; Schwarcz & Scheer, 2004; Nemoto et al., 2004). Regardless of the age of gender transition, beginning to socialize in the true psychological gender necessitates learning new “sexual negotiation skills,” and new sexual relationships can provide an opportunity for exposure to HIV and other sexually transmissible infections. Older adults may be particularly vulnerable in this regard, due to having come of age in an era during which HIV infection was not yet a concern. Lack of familiarity with risk-reduction techniques is also more common than among younger adults, who have often received this information in school or other group venues. Many older transgendered persons report having not used any safer sex techniques during first dating experiences in the new gender presentation. (Susan’s experience was consistent with this pattern.)

Data comparing the risk of HIV infection for transgendered and non-transgendered single, older adults is currently lacking. However, the burden which infection places on transsexual or transgendered persons may be greater, due to the competing medical demands it creates. HIV infection in later life often leads to situations in which middle-aged or elderly persons are living with the burden of obtaining both antiretroviral
chemotherapy and the medical treatments associated with other chronic conditions. The need to obtain (and in some countries, finance) appropriate hormonal and surgical services compounds this problem (Witten, 2004).

Physicians caring for older transgendered persons should remain alert to the possibility of HIV risk and infection. Suggested interventions include:

1) Discussion of social and sexual behaviors prior to beginning gender transition and at intervals during this process;

2) HIV risk reduction education, tailored to the sexual practices and preferences of the individual;

3) Referral to transgender community resources for additional support of healthy sexual behaviors, if this is indicated and resources are available.

Practical Concerns in Transgender Healthcare

Privacy and Gender Identity Disclosure: Healthcare consists of both medical and social aspects. Obtaining healthcare and personal assistance services is more complex for persons who are transgendered—and have not had genital reconstruction surgery--than for those who are transsexual and post-operative. Apparent mismatch between genital anatomy and gender of presentation can result in difficulty in obtaining medical services (Bockting, et al., 2004), practical nursing care, or even appropriate funereal arrangements (as in the case of Billy Tipton, whose female genitalia were “discovered” by the mortician and sensationalized in the American tabloid press). Tyra Hunter, a pre-operative male-to-female transsexual woman was reportedly refused appropriate and timely medical care by Washington, D.C. paramedics despite being the victim of a hit-and-run car accident. When her male genital anatomy was revealed, the paramedics reportedly refused to render treatment because they thought that Ms. Hunter was homosexual and might have AIDS (Bowles, 1995; Fernandez, 1998). The case of Leslie
Feinberg (Feinberg, 1996), who was forced to leave an emergency room when his female anatomy was discovered is also well-known among American transgendered persons. Many medical and nursing personnel consider still gender variance to be evidence of psychiatric pathology, though this view is clearly not supported by any legitimate clinical research. The experience of transsexual, transgendered and cross-dressing persons in long-term care facilities is currently under-researched, although anecdotal evidence suggests significant difficulties and sometimes abuse (Witten & Whittle, 2004).

Healthcare and Financial Status in Old Age: The financial aspects of transgender healthcare are also affected by gender discrimination. Many female-to-male transsexual and transgendered adults begin gender transition after years of lesbian identification. Survey data (Eyler & Witten, unpublished) indicates that, in the United States, incomes well-below the national average are commonplace, most likely as a result of discrimination on the basis of gender (female) and sexual orientation (lesbian). For both transsexual women and men, dismissal from employment during gender transition is still common in many parts of the world. This is significant in light of the fact that whether elders are impoverished by adverse later-life events depends on their economic resources just prior to the event, and that financial resources available in old age depend very much on the long-term economic status throughout much of adult life (Choudhury & Leonesio, 1997). This dynamic affects both immediate and long-term healthcare financing, and also other important aspects of living for elderly people, such as housing (Liebig, 1996) and retirement (Vitt & Siegenthaler, 1996). A comprehensive discussion of mid-life issues of aging among transgendered persons may be found in Witten (2004).

TRANSGENDER AGING AND SOCIAL ADJUSTMENT

Gender transition at any age requires physical, legal, and social adaptation. Family relationships, community integration and social support are important aspects of life for older adults, and are often significantly affected by the gender transition process.

Family: Family relationships change with the older person's “coming out” with regard to his or her gender identity. Fatherhood and motherhood, siblingships, grandparenthood
and other aspects of the family constellation may be reevaluated during the gender transition process. Children and young adults are usually, though not always, accepting of gender change (Ettner, 1999). Therefore, concerns regarding the appropriateness of disclosing gender one’s true gender to grandchildren and other young relatives are generally unwarranted; however, young children are also vulnerable to the prejudicial attitudes of their parents, and may react negatively if their parents are rejecting of a grandparent or older relative.

Although gender transition among the elderly, and within the context of a long-term marriage or partnership, is still relatively uncommon, experience with middle-aged couples in which one partner is transgendered or transitions gender suggest several possible outcomes. Many middle-aged spouses or long-term partners will choose to maintain the relationship as their spouse or partner changes gender presentation, genital sex, or both; however, many others will not. Couples who do maintain a marriage or partnership may need to “redefine” their relationship. More versatile persons can maintain a sexual relationship; other couples become “friends,” “sisters,” etc. In the former case, loss of the previous sexual orientation (usually as a heterosexual woman or lesbian; experience with male-transman couples is currently more limited) can be difficult for the non-transitioning partner. She may adjust by drawing a distinction between her relationship (which has changed) and her sexual orientation (which has not): “My husband is becoming a woman, but we're going to stay married.” Some elders transition after loss of the primary relationship, as James did in becoming Susan, though this requires reasonable health and a high degree of self-efficacy, as many aspects of life are redefined concurrently.

Community Integration: Quality of life for older transgendered persons often centers upon the degree of social integration which the individual has been able to achieve earlier in life, or on the personal flexibility and resilience available for the development of new relationships during the later years. Community acceptance of persons with non-traditional life paths, and the presence of resources for them, can also be crucial. The specific needs of transgendered elders have not, as yet, been well studied, but are likely similar to those of non-transgendered older persons who find that social network support
and community resources are important for the ongoing maintenance of well-being. (Stallings et al., 1997 address these issues for the non-transgendered elderly. See also Turner, 1996; Magai & McFadden, 1996; Thompson, 1996). Susan's case reflects this pattern.

Spirituality: It is been reported that elderly persons frequently develop a high degree of spirituality, though not necessarily a great desire to attend traditional church or other religious services (personal communication to TMW at the 1997 and 2004 Gerontological Society of America Meetings). Although the patterns of participation in religious activities among older transsexual adults are not currently known, recent survey research has revealed that a majority self-identifies as being a part of a traditional religion or as being highly spiritual (Witten, GSA 2004). Susan's search for an accepting religious community, and her subsequent return to the faith of her youth, illustrate this process.

Assisted Living and Social Support: The needs of older transgendered persons are similar to those of their non-transgendered peers with respect to the significant life transitions of the elder years. Loss of the spouse or partner, and longstanding friendship group, due to death; decreased ability to maintain a private residence, loss of driving capability, transition from an independent residence to an assisted living environment (and ultimately to dependent nursing care) all serve to erode personal control and are significant issues in the lives of all persons who survive to become the “oldest old.”

For transgendered elders, these challenges are compounded by issues regarding disclosure, privacy, isolation from transgendered peers, specialized healthcare needs, and the potential for ostracism and judgment by the healthcare professions and caregivers. Older transsexual persons who have obtained sex reassignment surgery at earlier life stages may not experience these difficulties, due to the combination of a well-established gender presentation and the elimination of historical ties to the pre-transition life, which often occur with the passage of time. However, individuals who undertake gender transition during the elder years must make numerous decisions with regard to sharing confidential—and potentially sensational or ostracizing—personal information with their caregivers. In addition, post-operative transsexual elders must confide in their physicians
and other healthcare professionals with regard to past medical history, or risk later exposure. For example, a transsexual woman who has completed sex reassignment surgery in her youth will still retain her prostate. Ideally, she should receive routine prostate examinations by a healthcare provider who is familiar with her past medical history. If this option is not available to the patient, her prostate may be perceived as a “rectal mass” during routine physical examination performed upon hospital admission.

Physicians can best assist their elderly transgendered patients by providing them with information regarding the importance of routine healthcare, including preventive services, arranging referrals to colleagues who are empathic and supportive of transgendered persons, and educating others involved in the clients' care with respect to the realities of human gender diversity. This latter endeavor must include medical, nursing, and social work colleagues, as well as unskilled and semi-skilled care assistants. In addition, facilitation of support group formation for older transsexual adults (Slusher et al., 1996) may be of benefit. Addressing family dynamics, and referring for family or individual counseling when difficulties are detected, can be crucial.

**GRACEFUL EXITS: LIVING AND DYING WELL**

Late life and end of life support is also important to older transgendered people. While there is no evidence to suggest that incidence or prevalence of late life medical problems among transgendered persons is any different from that of the general population, transgender identification confounds these issues by setting up barriers to competent caregiving, thereby increasing healthcare disparities for this population. The following case study is from the United Kingdom:

*James, a transgendered man of 71 who had undergone chest reconstruction but not genital surgery, was experiencing early Alzheimer's dementia. He was placed within a local authority care home [a nursing home in the U.K.] where every other client was female. The staff at the care home was uncomfortable with his personal care and very unhappy with his constant removal of his incontinence pads. They had also taken to not passing on his post which included a support group magazine, deciding*
that he was not able to read and understand it. A local volunteer visitor contacted a support group after discovering James very distressed (Witten & Whittle, 2004).

James had no visitors, as he had no family with whom he kept in touch. Since his transition over 30 years ago, he had led a very isolated life. On chatting with him, it was discovered that he was extremely distressed with the paper pants and incontinence pads that were being used in his care. James called them “sanitary towels” and regarded them as women's aids.

Palliative care and “dying well” are also important aspects of transgender elder care. For example:

Janice is an 87 year-old transsexual woman who has been living in her true gender identity for over 15 years, but who never received genital surgery. She lost contact with her only son at the time she transitioned and has no remaining friends or family. She has been admitted to hospice care for terminal cancer and has problems with incontinence. Because of the aggressive nature of the cancer, Janice is in a great amount of daily pain and must be medicated. The hospice wishes to have her use a catheter to manage her incontinence. However, she refuses and is wetting the bed, making her caregiving difficult. Upon arrival, she vigorously fought with the staff over changing her underwear, creating much stress among the hospice nurses, who did not understand that her reluctance was due to the fact that, despite her female identity and life, her genitalia were still male in appearance.

For transgendered persons, gerotranscendence (a shift in meta-perspective from a materialistic and pragmatic view of the world to a more cosmic and transcendent one, Tornstam, 1989) and dying well are profoundly tied to the integration of the gendered self with the usual aging processes. The transgendered identity and experience can often add complexity to the later years that can affect the experience of chronic care, palliative care, and the act of dying itself. Physicians and other healthcare professionals must remain aware of the need of elderly transgendered persons to retain psychological
wholeness by having their true gender respected during medical examination, personal care, and other practical aspects of living during the process of increasing frailty and preparing for death.

{Insert Box 9 about here.]

Post-mortem Issues

Certain aspects of the death of a transgendered person may fall outside the rubric of normative cultural rituals and rules.

Family and significant others of the transgendered person will usually make the funereal arrangements. Open-casket ceremonies may provide difficulty if the mourners have not resolved any issues with the deceased's new identity and public presentation. Similarly, the deceased may have requested memorials and gravestones to be in the new name and gender identity. Conflict may arise if the family of origin is divided in their acceptance of the gender transition. The manner in which the family chooses to deal with these unresolved issues may impact the last wishes of the deceased transgendered person.

Post-mortem autopsy can also present problems if the coroner's office insists on recording the death certificate in the natal sex of the individual or if the autopsy reveals a previously non-disclosed transgender identity.

During the post-funereal period, family may be experiencing strong emotions in addition to those typical of bereavement. For example, children may be dealing with unresolved anger at the parent for transitioning, the loss of the “parental role” (father/mother) and the subsequent loss of the transitioned parent as well. Alternately, if the deceased is the parent of a transgendered older adult, there may be unresolved anger and feelings of worthlessness arising from earlier loss of acceptance and other actions previously taken by the parent. In some cases, gender transition has resulted in being disinherited by a disapproving parent:
Frank, the 68 year-old transsexual man whose conflict with his rejecting and verbally abusive 90 year-old father was earlier discussed, subsequently reported: My father recently passed away, dying in my arms. I am now attempting to deal with his death and my inability to find resolution in having him accept me as a man.

Spouses and significant others may also be confronted with legal and insurance problems when carrying out the deceased's last wishes. Difficulties can arise in establishing the legitimacy of the transgendered person's will, if it has not been revised in the post-transition identity and name. Life insurance claims may also be delayed by questions regarding legal proof of the identity of the deceased. Inheritance by the spouse may be problematic in states and countries that do not permit legal marriage after gender transition. Government benefit (e.g., Social Security) claims by the widowed spouse may also be hindered by lack of accurate documentation, as may other otherwise legitimate legal claims.

Physicians should encourage their transgendered patients to keep pertinent identity documents and proof of identity change in a safe location, and to use available legal means to ensure that their wishes regarding inheritance and funereal arrangements are carried out. States and nations that do not recognize marriages that are performed after transition are often nonetheless bound by legal procedures such as the last will and testament.

CONCLUSION

The medical, psychological, and social needs of older transgendered persons can be best served through a comprehensive and holistic approach, including the individual, family, physician, other healthcare professionals and the community. Health and social policy development on behalf of the transgendered elderly, including the assurance of nondiscrimination with regard to quality healthcare services, privacy, confidentiality,
respectful treatment and caregiving, and personal safety, is also strongly needed (Witten & Whittle, 2004).

The experience of Susan (nee James) demonstrates that older transsexual persons can maintain dignity, autonomy, and positive social connections while seeking integration of the physical and psychological elements of the authentic self. Our experience suggests that physicians and other members of the healthcare and helping professions can assist in this actualizing process. It is to be hoped that alliances between transgendered older adults and the professionals working in this field will enable these elderly persons to achieve successful aging and to live long and vital lives.

FOOTNOTES

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CONTACTING THE PROJECT

The TranScience Research Institute makes all of its research publications freely available for download. All citations in this paper and past white papers are available at http://www.transcience.org. Dr. Witten is seeking participants for confidential survey research about gender identity and aging. If you are interested in contacting TranScience Research Institute, please send e-mail to either transscience@transcience.org or tmwitten@earthlink.com. More details are available at http://www.transcience.org. You may contact the project at the following address: Tarynn M. Witten, Ph.D., MSW, FGSA,
Quality of life, functional status, and life expectancy among the elderly are often affected as much by lifestyle and social factors as by medical treatment per se. All elderly patients should be encouraged to maintain social contacts, group activities and moderate physical exercise, such as walking.

Most clinical aspects of elder care are the same for elderly women and men, regardless of gender identity and hormone use. For example, all patients should be encouraged to eat a nutritious diet, to have blood pressure and serum glucose monitored at reasonable intervals, and to eliminate or limit use of alcohol and tobacco.

Cancer screening which is not sex-specific (e.g. cancers of the GI tract and skin) is not affected by gender identity or hormone use. Usual preventive practices should be followed for all patients.

Specific, evidence-based guidelines for care of transgendered elderly patients have not yet been developed, due to the paucity of evidence that exists for this population. Clinical recommendations are therefore based on extrapolation from the care of non-transgendered, elderly women and men.
The medical risks associated with hormone use rise with age. However, use of hormonal supplementation may provide other benefits with regard to quality of life and sense of well-being. Decisions regarding whether and how to use hormonal medications in the later years should be made by patients in discussion with their physicians.

BOX 6

Elderly transsexual women should not smoke. Cardiovascular risks should be evaluated and medically controlled. Patients should be advised of the potential health risks of estrogen use. Transdermal 17-beat-estradiol preparations are preferred.

BOX 7

Elderly transsexual men should not smoke. Female-to-male patients who are using androgen supplementation should be advised to continue hemoglobin level monitoring throughout life. Treatment of polycythemia is the same for FTM men and men using testosterone supplementation for treatment of hypogonadism: phlebotomy if necessary, reduction in androgen dose, and close monitoring of hemoglobin and testosterone levels. Polycythemia vera may require chemotherapy.

BOX 8

Decisions regarding suitability for surgery are made on the basis of medical and surgical history, current cardiovascular health status of the patient, and complexity of the planned procedure, including estimated anesthesia time, cardiovascular stress, etc.

BOX 9

“Who have I been in this life, and what has it meant to me?” are usually the principal questions for elderly persons, regardless of gender identity or gender transition. Erik Erikson referred to the challenge of the final stage of life as “integrity vs. despair.”


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