OBJECTIVE: To estimate cost-effectiveness of pathogen inactivation for platelet transfusions in Dutch cardiac surgery. We used decision-tree analysis to evaluate the cost-effectiveness of the addition of pathogen inactivation to pooled platelets to standard procedures for platelet transfusion safety (such as, donor recruitment and screening). METHODS: Data on transfusions were derived from the University Hospital Groningen (Netherlands) for 1997. Characteristics of platelet recipients (age, gender, survival) and data/assumptions on viral and bacterial risks were linked to direct and indirect costs/benefits of pathogen inactivation. Post-transfusion survival was simulated with a Markov-model. Standard methods for cost-effectiveness were used. Cost-effectiveness was expressed in net costs per life-year gained and estimated in baseline-, sensitivity- and scenario analysis. Sensitivity analysis revealed that cost-effectiveness was insensitive to viral risks, but highly sensitive to, for example, the assumed reduction in the discard rate and discounting. Stochastic sensitivity analysis was performed on bacterial risks. Scenario analysis was elaborated on judicial aspects and occurrence of a new yet unknown virus. RESULTS: Net costs per life-year gained were €110,000 in the baseline (90% CI: €80,000–€180,000). Sensitivity analysis showed potential reductions in cost-effectiveness down to €50,000 per life-year gained. CONCLUSIONS: Given relatively high net costs per life-year gained that are internationally accepted for blood transfusion safety interventions, our estimated cost-effectiveness figures for pathogen inactivation may reflect acceptable cost-effectiveness in this specific area. Validation of several crucial parameters is required, in particular the Dutch risk for acquiring transfusion-related sepsis. Further work should extend the model to other countries, other patient groups (haematology) and the potential elimination of donor testing if pathogen inactivation is to cover the whole spectra of pathogens and blood products.

COSTS OF STROKE: A COMPARISON OF REGULAR CARE AND THREE EXPERIMENTAL STROKE SERVICES IN THE NETHERLANDS
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OBJECTIVES: Determine patient costs after stroke and compare costs between regular care for stroke patients and care organised in stroke services. METHODS: Patient costs after stroke were calculated within the framework of the evaluation of three experiments with stroke services in the Netherlands. Total costs of care per patient for the 6-month follow up were based on medical consumption of 598 patients in 6 regions consecutively admitted to a hospital after stroke. Care consumption and cost data were collected for hospital, rehabilitation, nursing home, and home care. Care consumption was retrieved from patients’ medical records and from patient interviews two and six months after stroke. Unit cost data were collected at participating institutions. RESULTS: We found that the total costs of care per patient for the 6 month follow up after stroke amount to almost €16,000 on average. Costs are dominated by institutional costs and accommodation costs. Patients who die during the acute phase incur less costs. For patients that survive the acute phase, severity of disability, age, gender and place of residence before stroke are the most important determinants of costs, as they influence patients’ stroke careers. These determinants of costs also interact. CONCLUSIONS: Stroke care organised in stroke service experiments potentially is more effective than regular care, although large differences in costs were found between the three stroke services. The most efficient stroke service experiment was the one that was most successful in coordinating patient flow from hospital to (nursing) home, through capacity planning and efficient discharge procedures. The other experiments suffered from waiting lists for (nursing) home care, leading to “blocked beds” and higher costs of care. The relations found between costs, organisation of care, patient characteristics and disease severity may be applied as building-blocks for DRGs for stroke care.

OBESITY AND POTENTIAL COST OFFSETS FROM WEIGHT LOSS—FINDINGS FROM THE SWEDISH MALMO PREVENTION STUDY
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OBJECTIVE: The study aims to 1) estimate the costs of hospital treatment and the value of lost production due to early death associated with underweight, overweight and obese patients, and to extrapolate the findings to national costs and 2) estimate the potential benefits of an obesity intervention program in terms of cost-offsets. METHODS: For the first aim we use a retrospective analysis of the hospital treatment episodes of a defined population with data obtained from screening of 33,196 middle-aged subjects living in Malmo, Sweden and collected during a 15-year follow-up period. For the second aim we apply a prospective cost analysis within a modeling framework. RESULTS: The yearly excess hospital (somatic, psychiatric) care cost (SEK) for overweight (25-BMI-29 kg/sqm) and obesity (BMI ≥30 kg/sqm and above) was estimated to SEK 1300 million (US$130 million, assuming $1 = SEK10), or about 2.3% of total hospital care costs in Sweden. Indirect costs due to early mortality for obese subjects were estimated to SEK 1200 million (US$120 million). For males at age 55+ the potential hospital care savings, excluding costs of intervention, that could be gained by an intervention that successfully and safely could alter the weight of an overweight or obese individual to become normal weight was estimated to SEK 30,000 (US$3,000) over 15 years. CONCLUSION: Hospital treatment costs are found to have a J-