Appendix 2 (as supplied by the authors): Cost of Mechanical Thrombectomy Treatment

Table A2: Literature Review of Costs for Mechanical Thrombectomy Treatment—Summary

Author, Year	Mean Hospitalization Cost for Mechanical Thrombectomy	Mean Hospitalization Cost for Control	Currency, Cost Year	Extra Cost due to Mechanical Thrombectomy treatment[a] ($CAD 2015)
Leppert et al, 2015 (1)	$14,405 (additional cost of MT, relative to IVT)	NA	USD, 2012	$14,572
Rai et al, 2015 (2)	$23,698 (favourable outcome) $31,500 (poor outcome)	$13,688 (favourable outcome) $20,934 (poor outcome)	USD, cost year unclear	$12,359 (favourable outcome) $13,046 (poor outcome)
Simpson et al, 2014 (3)	$35,130	$25,630	USD, 2012	$9,610
Bouvy et al, 2013 (4)	€4,171 (additional costs at 6 months IVT relative to conservative treatment, 50% patients used retrievable stent)	€971 (additional costs at 6 months IVT relative to conservative treatment)	Euro, 2010	$4,558
Chen, 2012 (5)	At least $10,000 more per patient (estimate)	Not report explicitly	USD, 2012	≥$10,116
Nguyen-Huynh et al, 2011 (6)	$19,210 (without SICH) $28,087 (with SICH)	$4,686 (without SICH) $10,245 (with SICH)	USD, 2009	$17,681 (without SICH) $21,720 (with SICH)
Kim et al, 2011 (7)	$20,657 (without SICH) $29,534 (with SICH)	$8,408 (without SICH) $15,945 (with SICH)	USD, 2009	$14,910 (without SICH) $16,543 (with SICH)
Patil et al, 2009 (8)	$24,154	$6,749	USD, 2008	$20,349
University Health Network (UHN), 2015	$41,941 (entire episode of care, excluding physician fee) $16,965 (device)	NA	CAD, 2015	NA
Ottawa Hospital, 2015	$10,473 (assuming 1.3 devices per patient)	NA	CAD, 2015	NA
Turk et al, 2014 (9)	Traditional Penumbra aspiration system with separator: $33,611 (total); $7,421 (device) Stent retriever with local aspiration: $51,599 (total); $10,263 (device) direct aspiration first-pass technique: $54,700 (total); $15,798	NA	USD, 2013	NA
Bing et al, 2013 (10)	€5,018 (cost of materials, wires, catheters, femoral introducers, carotid stents, et al) or CAD $6,936	NA	Euro, 2010 CAD, 2010	NA

Author, Year	Mean Hospitalization Cost for Mechanical Thrombectomy	Mean Hospitalization Cost for Control	Currency, Cost Year	Extra Cost due to Mechanical Thrombectomy treatment[a] ($CAD 2015)
Brinjikji et al, 2011 (11)	$36,999 (median, with good outcomes) $50,628 (median, with severe disability) $35,109 (median, with mortality)	NA	USD, 2008	NA

Abbreviations: MT, mechanical thrombectomy; IVT, intravenous thrombolysis; SICH, symptomatic intracerebral hemorrhage.

[a]We used historical exchange rates to convert US dollars or Euros to Canadian dollars in the corresponding year. (12) Then, we used the Consumer Price Index to adjust costs to 2015 Canadian dollars. (13)

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