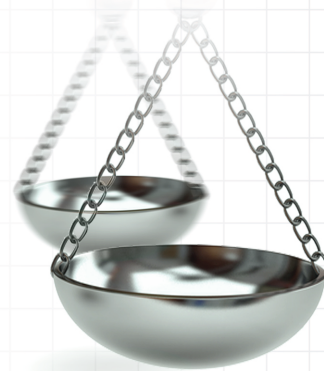




Corrigendum

Journal of Comparative Effectiveness Research

In the Systematic Review by Kara Sarrel, Daniel Hameed, Jeremy Dubin, Michael A Mont, David J Jacofsky and Andréa B Coppolecchia, “Understanding economic analysis and cost-effectiveness of CT scan-guided, 3-dimensional, robotic-arm assisted lower extremity arthroplasty: a systematic review”, which appeared in the April 2024 issue of the *Journal of Comparative Effectiveness Research* (13[4], e230040 [2024]), some errors occurred within the text and Tables, as detailed below. These corrections do not affect the overall conclusions of the article.

Text corrections are as follows:

Original text:	Has been corrected to:
For index UKAs, they found a shorter LOS (1.8 vs 2 days, $p = 0.0047$), lower index costs (\$25,786 vs \$26,307, $p = 0.05$), and a decreased 2-year rate of revision (0.81 vs 5.28%, $p = 0.002$) for rUKA compared with mUKA.	For index UKAs, they found a shorter LOS (1.8 vs 2 days, $p = 0.0047$), lower index costs (\$25,786 vs \$26,307, $p > 0.05$), and a decreased 2-year rate of revision (0.81 vs 5.28%, $p = 0.002$) for rUKA compared with mUKA.
They found a decreased LOS in the rTKA cohort (1.2 vs 1.6 days, $p < 0.0001$) and overall lower index costs during the hospitalization (\$12,356. vs \$15,586, $p < 0.001$) when compared...	They found a decreased LOS in the rTKA cohort (1.2 vs 1.6 days, $p < 0.0001$) and overall lower index costs during the hospitalization (\$14,189 vs \$15,586, $p < 0.001$) when compared...
They found a shorter LOS in the rTKA cohort compared with mTKA (1.5 vs 1.8 days, $p < 0.001$)...	They found a shorter LOS in the rTKA cohort compared with mTKA (1.5 vs 1.6 days, $p < 0.001$)...
A 2021 paper by Mont et al. [23] utilized data from the Medicare Standard Analytic Files from 2016 to 2017 to evaluate differences in rTKA vs mTKA groups with regards to 90-day EOC costs, discharge dispositions, post-discharge utilizations, and readmissions. When compared with mTKA, they found a lower LOS in the rTKA cohort (1.8 vs 2.5 days, $p < 0.0001$), decreased index costs during the hospitalization (\$12,384 vs \$13,024, $p = 0.0001$), lower post-discharge costs (\$5234 vs \$6978, $p < 0.0001$), and lower 90-day EOC costs (\$18,568 vs \$20,960, $p < 0.0001$). Fewer patients in the rTKA were discharged to a SNF or inpatient rehabilitation (15.2 vs 28.3%, $p < 0.0007$), with the average cost of SNF lower in the rTKA cohort as well (\$7201 vs \$7947, $p = 0.0230$) vs mTKA. Post-discharge utilization was lower in the rTKA cohort, with 61.3% utilizing home health services with an average cost of \$3045 for an average of 11.7 home health visits, compared with 62.7% and \$3536 for an average of 14 visits in the mTKA cohort. Patients in the rTKA cohort also had significantly fewer outpatient clinic visits in the first 90 days post-operatively (35.5 vs 42.9%, $p < 0.0001$). Readmissions were also lower in the rTKA cohort (5.2 vs 7.8%, $p = 0.0423$). They found a lower, but not statistically significant, 90-day utilization of ED services in the rTKA group (11.2 vs 13.3%, $p = 0.1726$) compared with mTKA.	A 2021 paper by Mont et al. [23] utilized data from the Medicare Standard Analytic Files from 2016 to 2017 to evaluate differences in rTKA vs mTKA groups with regards to total episode payments, health care utilization, and readmissions, at 30-, 60-, and 90-day time points. When compared with mTKA, they found lower total episode payments in the rTKA cohort at 30 days, US \$17,768 versus US\$19,899 ($p < 0.0001$), at 60 days, US\$18,174 versus US\$20,492 ($p < 0.0001$), and at 90 days, US\$18,568 versus US\$20,960 ($p < 0.0001$). At 30 days, 47% fewer rTKA patients utilized skilled nursing facility (SNF) services (13.5 vs 25.4%; $p < 0.0001$) and had lower SNF costs at 30 days (US\$6,416 vs US\$7,732; $p = 0.0040$), 60 days (US\$6,678 vs US\$7,901, $p = 0.0072$), and 90 days (US\$7,201 vs US\$7,947, $p = 0.0230$). rTKA patients also utilized fewer home health visits and costs at each time point ($p < 0.05$). Additionally, 31.3% fewer rTKA patients utilized emergency room services at 30 days postoperatively and had 90-day readmissions (5.20 vs 7.75%; $p = 0.0423$).
This study reported on a subset of patients undergoing primary THA from 2008 to 2017.	This study reported on a subset of patients undergoing primary THA from 2008 to 2018.
Of note, this study also found in-hospital THA dislocation to be lower in the rTHA cohort compared with mTHA (0.1 vs 0.8%, $p < 0.001$), as well as lower minor perioperative complications (12.8 vs 21.6%, $p = 0.004$).	Of note, this study also found lower rates of THA dislocation (0.1 vs 0.8, $p < 0.001$), minor perioperative complications (12.8 vs 21.6%, $p = 0.004$ and implant related mechanical complications (0.5 vs 3.1%, $p < 0.001$) for rTHA compared to mTHA.
This study also evaluated in-hospital post-operative complications and found a lower rate of major complications in the rTHA cohort (2.2 vs 3.3%, $p < 0.001$), and lower rates of in-hospital implant-related mechanical complications (0.5 vs 3.1%, $p < 0.001$).	This study also evaluated in-hospital post-operative complications and found no significant difference in the odds of experiencing either a major or a minor complication.

Original text:	Has been corrected to:
• Compared with mTHA, LOS was lower in the rTHA cohort (2.3 vs 2.5 days, $p = 0.0137$), and fewer patients in the rTHA cohort were discharged to a SNF (27.1 vs 35.6%). In addition, rTHA patients spent fewer days at a SNF (18 vs 19.6 days), which amounted to a \$1224 average cost savings compared with mTHA. Total overall costs of home health services were lower in the rTHA cohort (\$3352 vs \$3496).	• Compared with mTHA, LOS was lower in the rTHA cohort (2.3 vs 2.5 days, $p = 0.0137$), and fewer patients in the rTHA cohort were admitted to a SNF (20.8 vs 25.0%). In addition, rTHA patients spent fewer days at a SNF (18 vs 19.6 days), which amounted to a \$1224 average cost savings compared with mTHA. Total overall costs of home health services were lower in the rTHA cohort (\$3352 vs \$3496).
• ... found lower cumulative costs for rTHAs compared with mTHAs, for both Medicare (\$14,811 $\pm$ 40 vs \$16,189 $\pm$ 115) and private payor scenarios (\$15,212 $\pm$ 82 vs \$17,022 $\pm$ 204).	• ... found lower cumulative costs for rTHAs compared with mTHAs, for both Medicare (\$14,410 $\pm$ 40 vs \$15,355 $\pm$ 115) and private payor scenarios (\$15,212 $\pm$ 82 vs \$17,022 $\pm$ 204).
• In a 2022 retrospective study, Kolessar <i>et al.</i> [19] evaluated a series of 178 patients (6 mUKAs, 19 rUKAs, 58 mTKAs, and 85 rTKAs)...	• In a 2022 retrospective study, Kolessar <i>et al.</i> [19] evaluated a series of 178 patients (6 mUKAs, 29 rUKAs, 58 mTKAs, and 85 rTKAs)...
• Robotic-arm assisted UKA patients had increased operating times (86 vs 75.9 min, $p = 0.004$), but a lower length of stay (1.8 vs 4.8 days, $p < 0.001$).	• Robotic-arm assisted UKA patients had increased operating times (86 vs 75.9 min, $p = 0.004$), but a lower length of stay (1.8 vs 4.5 days, $p < 0.001$).

In addition, Tables 2–6 were published with errors. The correct tables are shown here:

Table 2. CT Scan-guided, 3-dimensional, robotic-arm assisted unicompartamental knee arthroplasty.

	Cool <i>et al.</i> (2019)		Clement <i>et al.</i> (2019)	
	M	R	M	R
Robotic system cost inclusion	N/A	No	N/A	Yes
CT-scan cost inclusion	N/A	No	N/A	Yes
Total (n)	492	246	-	-
LOS	2 days	1.8 days		
In hospital costs	\$26,307	\$25,786		
Post D/C costs				
90-day EOC cost				
Use of HH services (%)				
HH visits (n)				
Cost of home health				
Outpatient rehab costs				
Revision (1 year)	5.3%	0.8%	1.1%	0.5%
Increase in QALYs			1.39	1.80
\$/QALY			\$1170	\$1395

D/C: Discharge; ED: Emergency department; EOC: Episode of care; HH: Home healthcare; ICER: Incremental cost-effectiveness ratio; LOS: Length of stay; M: Manual; QALY: Quality-adjusted life-year; R: Robot; SNF: Skilled nursing facility.

Table 3. CT scan-guided, 3-dimensional, robotic-arm assisted total knee arthroplasty.

Category	Cotter <i>et al.</i> (2020)		Mont <i>et al.</i> (2021)		Pierce <i>et al.</i> (2020)		Cool <i>et al.</i> (2019)		Tompkins <i>et al.</i> (2022)		Fang <i>et al.</i> (2022)	
	M	R	M	R	M	R	M	R	M	R	M	R
Robotic system cost inclusion	N/A	Yes	N/A	No	N/A	No	N/A	No	N/A	Yes	N/A	No
CT scan cost inclusion	N/A	No	N/A	No	N/A	No	N/A	No	N/A	No	N/A	No
Total (n)	139	147	2595	519	1785	357	2595	519	2392	2392	1795	263
LOS	1.6	1.2	2.5	1.8	2.7	1.8	2.5	1.8	1.84	1.76	2.1	1.8
In-hospital costs	\$15,586	\$14,189	\$13,024	\$12,384	\$24,069	\$21,347	\$13,024	\$12,384	\$16,330	\$21,006	X	1.1X
Post D/C costs	\$2134	\$1441	\$6978	\$5234	\$8189	\$6857	\$6978	\$5234				
90-day EOC cost	\$17,721	\$15,630	\$20,960	\$18,568	\$32,253	\$28,204	\$20,960	\$18,568				
Discharge to SNF/rehab	8.6%	4.1%	28.3%	15.22%	6.1%	1.7%	28.2%	15.2%	5.0%	5.0%	6.3%	1.5%

D/C: Discharge; ED: Emergency department; EOC: Episode of care; HH: Home healthcare; ICER: Incremental cost-effectiveness ratio; LOS: Length of stay; M: Manual; PPF: Periprosthetic fracture; QALY: Quality-adjusted life-year; R: Robot; SNF: Skilled nursing facility.

Table 3. CT scan-guided, 3-dimensional, robotic-arm assisted total knee arthroplasty. (cont.).

Category	Cotter <i>et al.</i> (2020)		Mont <i>et al.</i> (2021)		Pierce <i>et al.</i> (2020)		Cool <i>et al.</i> (2019)		Tompkins <i>et al.</i> (2022)		Fang <i>et al.</i> (2022)	
	M	R	M	R	M	R	M	R	M	R	M	R
Cost of SNF			\$7947	\$7201	\$7849	\$6269						
Use of HH services			62.7%	61.3%	69.2%	67.0%			29.0%	38.0%		
HH visits (n)			14	11.7	6.4	5.3	14.3	11.9				
Cost of home health			\$3536	\$3045	\$2038	\$2009	\$3536	\$3045				
Outpatient rehab costs	\$746	\$802			\$2494	\$2272						
Readmission within 90 days	4.3%	2.7%	7.8%	5.2%	3.9%	2.2%	7.8%	5.2%	4.9%	1.2%		
Average readmission costs	\$305	\$73.37			\$24,289	\$13,328	\$9696	\$10,570				
Utilizing emergency department (ED) in 90 days post D/C	7.9%	8.8%	13.3%	11.2%	9.0%	9.0%	13.3%	11.20%				
ED costs in 90 days post D/C	\$147	\$57	\$736	\$614	\$4179	\$7033	\$736	\$614				
In-hospital periprosthetic fracture	0.7%	0.0%										

D/C: Discharge; ED: Emergency department; EOC: Episode of care; HH: Home healthcare; ICER: Incremental cost-effectiveness ratio; LOS: Length of stay; M: Manual; PPFx: Periprosthetic fracture; QALY: Quality-adjusted life-year; R: Robot; SNF: Skilled nursing facility.

Table 4. CT scan-guided, 3-dimensional, robotic-arm assisted total knee arthroplasty.

Category	Rajan <i>et al.</i> (2022)		Ong <i>et al.</i> (2022)		Gregory <i>et al.</i> (2022)		Grosso <i>et al.</i> (2022)		Hua <i>et al.</i> (2022)	
	M	R	M	R	M	R	M	R	M	R
Robotic system cost inclusion	N/A	Yes	N/A	No	N/A	No	N/A	Yes	N/A	Yes
CT scan cost inclusion	N/A	Yes	N/A	No	N/A	Yes	N/A	No	N/A	No
Total (n)			3710	742	4135	4135	460	460		
LOS			1.91	1.56	1.98	1.74	1.6	1.5		
In-hospital costs			\$34,509	\$32,747	\$31,280	\$29,984			\$28,737	\$33,581
Post D/C costs			\$6949	\$6513	\$7728	\$7189	\$6983	\$4066	\$2397	\$1618
90-day EOC cost			\$41,458	\$39,260	\$39,008	\$37,174	\$20,608	\$17,777	\$31,134	\$32,018
Discharge to SNF/rehab (%)							12.2	5.9		
Cost of SNF					\$135	\$91				
Use of HH services			72%	68.5%						
HH visits (n)										
Cost of home health			\$1394	\$1354	\$374	\$404				
Outpatient rehab costs			\$3151	\$1865						
Readmission within 90 days			15%	14.8%			2.39%	2.83%		
Average readmission costs					\$2137	\$1781				
Total discounted cost									\$31,917	\$32,535
Revision (1 year)	0.8%	0.3%	0.7%	0.3%						
In-hospital PPFx			0.03%	0.0%						
Increase in QALYs	13.29	13.55							6.17	6.18
ICER - R (\$/QALY)		\$15,685								\$41,331

D/C: Discharge; ED: Emergency department; EOC: Episode of care; HH: Home healthcare; ICER: Incremental cost-effectiveness ratio; LOS: Length of stay; M: Manual; PPFx: Periprosthetic fracture; QALY: Quality-adjusted life-year; R: Robot; SNF: Skilled nursing facility.

Table 5. CT scan-guided, 3-dimensional, robotic-arm assisted total hip arthroplasty.

Category	Emara <i>et al.</i> (2021)		Kirchner <i>et al.</i> (2021)		Pierce <i>et al.</i> (2021)		Clement <i>et al.</i> (2022)		Barsoum <i>et al.</i> (2022)	
	M	R	M	R	M	R	M	R	M	R
Robotic system cost inclusion	N/A	No	N/A	No	N/A	No	N/A	Yes	N/A	No
CT scan cost inclusion	N/A	No	N/A	No	N/A	No	N/A	Yes	N/A	Yes
Total (n)	128,356	32,092	758	758	4670	938	512	48	8660	1732
LOS	2.3	2.2	2.8	2.7	2.5	2.3			1.7	1.5
In-hospital costs	\$17,266	\$18,416	\$18,258	\$20,046	\$12,665	\$12,827			\$32,804	\$31,507
Post D/C costs					\$7854	\$6907			\$4205	\$3929
90-day EOC cost					\$20,519	\$19,734			\$37,009	\$35,436
Discharge to SNF/rehab	18.5%	17.4%			27.7%	20.8%				
Use of HH services					64.9%	72.9%				
Cost of home health					\$3496	\$3352				
Utilizing ED in 90 days post D/C					13.5%	13.6%				
ED costs in 90 days post D/C					\$786	\$715				
Revision (1 year)							0.40%	0.40%		
In-hospital PPFx	0.5%	0.2%								
Increase in QALYs								1.06		
ICER - R (\$/QALY)								£1432		

D/C: Discharge; ED: Emergency department; EOC: Episode of care; HH: Home healthcare; ICER: Incremental cost-effectiveness ratio; LOS: Length of stay; M: Manual; PPFx: Periprosthetic fracture; QALY: Quality-adjusted life-year; R: Robot; SNF: Skilled nursing facility.

Table 6. Other comparison studies.

Category	Kolessar <i>et al.</i> (2022)				Varughese <i>et al.</i> (2022)	
	UKA (M)	UKA (R)	TKA (M)	TKA (R)	UKA (R)	TKA (M)
Robotic system cost inclusion	N/A	No	N/A	No	No	N/A
CT-scan cost inclusion	N/A	Yes	N/A	Yes	Yes	N/A
Total (n)	6	19	58	85	120	120
LOS	1.6	1.4	1.8	1.8		
In-hospital costs	\$3287	\$4025	\$4087	\$4668	\$12,020	\$19,199
90-day EOC cost	\$1239	\$1051	\$1602	\$1196		
Use of HH services	83.0%	17.0%	29.0%	6.0%		
HH visits (n)	5	5	17	5		
Cost of home health	\$609	\$241				
Outpatient rehab costs			\$482	\$137		
Opioids - R UKA (ME)					125	
Opioids - M TKA (ME)						522.1

D/C: Discharge; ED: Emergency department; EOC: Episode of care; HH: Home healthcare; ICER: Incremental cost-effectiveness ratio; LOS: Length of stay; M: Manual; ME: Morphine equivalents; PPFx: Periprosthetic fracture; QALY: Quality-adjusted life-year; R: Robot; SNF: Skilled nursing facility; TKA: Total knee arthroplasty; UKA: Unicompartmental knee arthroplasty.

The authors and editors of the *Journal of Comparative Effectiveness Research* would like to sincerely apologize for any inconvenience or confusion this may have caused our readers.