

# APR-DRG Per Stay Calculator Instructions

DC Specialty Hospital Project

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# 1 Overview

The purpose of this document is to provide pertinent details to users about the design, content and functionality of the DRG pricing calculator. The DRG pricing calculator is an interactive spreadsheet.

The instructions shown in this document are intended to guide users through the steps necessary to effectively utilize the DRG pricing calculator. The instructions assume you will work through all the examples from beginning to end. Each example assumes that your DRG calculator is set to the settings of the previous example, then user input changes are highlighted. A variety of DRG payment types and DRG calculator utilization techniques are illustrated in the sections that follow.

# 1.1 Structure of the DRG Calculator

The DRG Calculator is comprised of four tabs. The four tabs are as follows:

- Cover Page – This tab contains an introduction to the DRG Calculator.
- Calculator – This tab contains the interactive portion of the DRG calculator. Cells shaded in aqua are user input fields. Cells shaded in light green are policy parameters set by the Department.
- DRG Base Rate Add-ons – This tab contains per Stay Specialty Hospital base rate and add-ons.
- DRG Table – This tab contains the DRG values. This table interacts with the calculator tab. It supplies the DRG specific values which are critical in the execution of the pricing functions of the calculator.

# 2 DRG Calculator Instructions

The examples and instructions throughout this document were developed to provide users with the information necessary to operate the DRG calculator. The user enters data into cells shaded with the aqua background. The spreadsheet automatically calculates the payment amount for the particular stay. The calculator does not predict the DRG. The user must have the DRG information prior to using the tool.

Payment policy parameter values are shown in the light blue background. The final payment amount including add-ons is shown in the last active cell in column C of the calculator tab which is shaded in black. Please keep in mind that the DRG calculator is intended to be helpful to users, but it cannot capture all the complexity of the Medicaid claims processing system. In the event of a discrepancy, the claims processing system should be considered correct.

The following pricing scenarios are depicted in this document:

- Straight DRG
- Acute Care Transfer
- High-Side Outlier Adjustment
- Low-Side Outlier Adjustment
- Interim Claim

For simplicity, each example builds on the previous example where possible.

## 2.1 Straight DRG

This is the simplest case, likely to apply to approximately 95 percent of inpatient stays once the new method is implemented. Follow these steps and use these values unless otherwise directed for other scenarios. Values and parameters are examples only. The table below has been altered to assist with clarity. A full view of the calculator follows.

- *Input* Total charges (cell E7): **\$130,062**
- *Input* Hospital-specific cost-to-charge ratio (cell E8): **39.30%**
- *Input* Length of stay (cell E9): **31**
- *Input* Patient discharge status = 02, 05, 63, 65, 66, 82, 85, 91, 93, or 94? (cell E10): **No**
- *Input* Patient age (cell E11): **59**
- *Input* Other health coverage (cell E12): **\$0.00**
- *Input* Patient share of cost (cell E13): **\$0.00**
- *Input* Is discharge status equal to 30? (cell E14): **No**
- *Input* Hospital-specific DRG base rate, including DMZ (cell E15): **\$24,709.03**
- *Input* APR-DRG (cell E18): **890-4**
- *Output* **Payment amount (cell E66): \$74,159.46**
- *Output* **Reimbursed amount (cell E69): \$74,159.46**

## 2.1.1 Straight DRG Example

1	C	D	E	F	G
2	<b>DC Medicaid DRG Pricing Calculator</b>				
3	Note: This calculator does not reflect final decisions on the structure of the DC adult LTCH specialty hospital DRG payment method that will be implemented October 1, 2016.				
4	Indicates information to be input by the user (cells E7-E18). Look for an estimate of final payment in Cells E66 and E69.			Indicates payment policy parameters set by Medicaid (cells E20-E28). Check Tab 3-DRG Base Rate Addons for hospital-specific base rates and addons to use in calculator.	
5	Information	Data	Comments or Formula		
6	<b>INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER</b>				
7	Total charges	\$130,062.00	UB-04 Form Locator 47		
8	Cost-to-charge (CCR) ratio (Hospital-specific)	39.30%	Used to estimate the hospital's cost of this stay		
9	Length of stay	31	Used for transfer pricing adjustment		
10	Discharge status = 02, 05, 63, 65, 66, 82, 85, 91, 93, 94	No	Used for transfer pricing adjustment		
11	Patient age (in years)	59	Used for age adjustor		
12	Other health coverage	\$0.00	UB-04 Form Locator 54 for payments by third parties		
13	Patient share of cost	\$0.00	Includes spend-down or copayment		
14	Is discharge status equal to 30?	No	Indicates an interim claim		
15	DRG base rate (Hospital-specific including EDZ)	\$24,709.03	Used for DRG base payment--see 3-DRG base Rate Addons		
16	Capital add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
17	DME add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
18	APR-DRG	890-4	Assigned via separate APR-DRG grouping software		
19	<b>PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE</b>				
20	High-cost outlier threshold	\$60,000	Used for high-cost outlier adjustments		
21	Low-cost outlier threshold	\$25,000	Used for low-cost outlier adjustments		
22	Marginal cost percentage	80%	Used for high-cost outlier adjustments		
23	Interim claim threshold- days	30	Threshold defining interim claims in days		
24	Interim claim threshold- dollars	\$500,000	Threshold defining interim claims in dollars		
25	Interim per diem amount	\$500	Per diem for pricing interim claims		
26	Pediatric mental health adjustor	1.00	Not used		
27	Neonate adjustor	1.00	Not used		
28	Pediatric adjustor (excludes ped MH, neonate, newborns)	1.00	Not used		
29	<b>APR-DRG INFORMATION</b>				
30	APR-DRG description	HIV W MULTIPLE MAJOR HIV RELATED CONDITIONS	Look up from DRG table		
31	Casemix relative weight--unadjusted	3.00131	Look up from DRG table		
32	Pediatric Medicaid Care Category	n/a	Not applicable		
33	Pediatric or Neonate Policy adjustor used (if applicable)	1.00	Not applicable		
34	Payment relative weight	3.00131	Casemix relative weight (E31) times policy adjustor (E33)		
35	National average length of stay for this APR-DRG	15.14	Look up from DRG table		
36	<b>IS THIS AN INTERIM CLAIM?</b>				
37	Is discharge status equal to 30?	No	Look up E14		
38	Is length of stay > interim claim threshold?	N/A	IF E37="Yes", then if (E9 > E23), "Yes", else "No", else "N/A"		
39	Are charges > interim claim threshold?	N/A	IF E37="Yes", then if (E7>E24), then "Yes", else "No", else "N/A"		
40	Skip to E69 for final interim claim payment amount	\$0	IF E38 or E39="Yes", (E9*E25), else 0		
41	<b>WHAT IS THE DRG BASE PAYMENT?</b>				
42	DRG base payment	\$74,159.46	Payment relative weight (E34) times hospital-specific base price w/IME (E15)		
43	<b>IS A TRANSFER PAYMENT ADJUSTMENT MADE?</b>				
44	Is a transfer adjustment potentially applicable?	No	Look up E10		
45	Calculated transfer payment adjustment	N/A	IF E44="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1, else "NA"		
46	Is transfer payment adjustment < DRG base payment so far?	N/A	IF E45 = "N/A" then , "N/A", else if (E45<E42), then "Yes" else "No"		
47	Allowed amount after transfer adjustment	\$74,159.46	IF E46= "Yes", then E45, else E42		
48	<b>IS A COST OUTLIER ADJUSTMENT MADE?</b>				
49	Estimated cost of this case	\$51,114.37	Est. cost = charges times CCR (E7 * E8)		
50	Is estimated cost > allowed amount	Gain	IF E49 > E47 then "Loss" else "Gain"		
51	<b>High-Side Outlier Payment When Payment Is Much Lower than Cost</b>				
52	Estimated loss on this case	N/A	IF E50 = "Loss", then est. cost minus allowed amount (E49-E47), else "N/A"		
53	Is estimated loss > outlier threshold	N/A	IF E50 = "Loss", then if loss > threshold (E52 > E20), then "Yes", else "No", else "N/A"		
54	DRG cost outlier payment increase	\$0.00	IF E53 = "Yes", then if loss is less than high-cost outlier threshold (E52<E20), then zero, else loss greater than high-cost threshold is multiplied times marginal cost threshold ((E52-E20)*E22), else 0		
55	<b>Low Side Outlier Payment When Payment Is Much Greater than Cost</b>				
56	Estimated gain on this case	\$23,045.09	IF E50="Gain", then (E47-E49), else"N/A"		
57	Is gain > outlier threshold	No	IF E50="Gain", then if gain> threshold (E56>E21), then "Yes", else "No", else "N/A"		
58	Calculated transfer payment adjustment	N/A	IF E57="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1, else "NA"		
59	Is transfer payment adjustment < DRG base payment so far?	N/A	IF E58 = "N/A" then , "N/A", else if (E58<E42), then "Yes" else "No"		
60	Allowed amount after DRG cost outlier payment decrease	\$74,159.46	IF E50="Gain" and if E59="Yes", then pay transfer adjustment (E58), else E47		
61	<b>ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS</b>				
62	Allowed Amount	\$74,159.46	IF E50="Loss", then allowed amount + high side outlier payment (E47+E54), else low-side outlier payment (E60)		
63	<b>CALCULATION OF PAYMENT AND REIMBURSEMENT AMOUNT</b>				
64	Other health coverage	\$0.00	E12		
65	Patient share of cost	\$0.00	E13		
66	Payment amount	\$74,159.46	If interim claim (E40>0), then interim claim (E40) amount as payment amount. Otherwise, subtract other health coverage (E64) and patient share of cost (E65) from allowed amount (E62) to obtain payment amount.		
67	Capital Add-on amount	\$0.00	Not applicable		
68	DME add-on amount	\$0.00	Not applicable		
69	Reimbursed amount including add-ons	\$74,159.46	E69=E66+E67+E68, unless interim claim, in which case E69=E40		
10/1/2016	This calculator spreadsheet is intended to be helpful to users, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.				
CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION October 1, 2016.					

## 2.2 Acute Care Transfer

When a patient is transferred to another acute care setting (discharge status 02, 05, 63, 65, 66, 82, 85, 91, 93, or 94), the payment to the transferring hospital may, or may not, be reduced. For these stays, the transferring hospital will be paid the lesser of the DRG base payment or the transfer payment.

The transfer calculation is applied to the transferring hospital according to the following calculation using the national average lengths of stay (ALOS) available with the APR-DRG grouper (untrimmed arithmetic averages):

$$\text{Transfer Payment} = (\text{Base DRG Amount} / \text{National ALOS}) \times (\text{LOS} + 1)$$

If the transfer payment adjustment results in an amount greater than the DRG base amount without the adjustment, the transfer payment is disregarded. The hospital receiving the patient collects the full DRG payment (unless the referring hospital also transfers the patient).

- *Input* Patient discharge status = 02, 05, 63, 65, 66, 82, 85, 91, 93, or 94? (cell E10): **Yes**
- *Input* Patient age (cell E11): **59**
- *Input* APR-DRG: **890-4**
- *Input* Length of Stay (cell E9): **2** (patient was transferred after 2 days)
- When the user enters “Yes” for discharge status 02, 05, 63, 65, 66, 82, 85, 91, 93, or 94, cells E44-47 are updated with the transfer payment adjustment calculation.
- *Output* **Payment amount (cell E66): \$14,694.74**
- *Output* **Reimbursed amount (cell E69): \$14,694.74**

## 2.2.1 Acute Care Transfer Example

1	C	D	E	F	G
2	<b>DC Medicaid DRG Pricing Calculator</b>				
3	<i>Note: This calculator does not reflect final decisions on the structure of the DC adult LTCH specialty hospital DRG payment method that will be implemented October 1, 2016.</i>				
4	<i>Indicates information to be input by the user (cells E7-E18). Look for an estimate of final payment in Cells E66 and E69.</i>			<i>Indicates payment policy parameters set by Medicaid (cells E20-E28). Check Tab 3-DRG Base Rate Addons for hospital-specific base rates and addons to use in calculator.</i>	
5	Information	Data	Comments or Formula		
6	<b>INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER</b>				
7	Total charges	\$130,062.00	UB-04 Form Locator 47		
8	Cost-to-charge (CCR) ratio (Hospital-specific)	39.30%	Used to estimate the hospital's cost of this stay		
9	Length of stay	2	Used for transfer pricing adjustment		
10	Discharge status = 02, 05, 63, 65, 66, 82, 85, 91, 93, 94	Yes	Used for transfer pricing adjustment		
11	Patient age (in years)	59	Used for age adjustor		
12	Other health coverage	\$0.00	UB-04 Form Locator 54 for payments by third parties		
13	Patient share of cost	\$0.00	Includes spend-down or copayment		
14	Is discharge status equal to 30?	No	Indicates an interim claim		
15	DRG base rate (Hospital-specific including EDZ)	\$24,709.03	Used for DRG base payment--see 3-DRG base Rate Addons		
16	Capital add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
17	DME add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
18	APR-DRG	890-4	Assigned via separate APR-DRG grouping software		
19	<b>PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE</b>				
20	High-cost outlier threshold	\$60,000	Used for high-cost outlier adjustments		
21	Low-cost outlier threshold	\$25,000	Used for low-cost outlier adjustments		
22	Marginal cost percentage	80%	Used for high-cost outlier adjustments		
23	Interim claim threshold- days	30	Threshold defining interim claims in days		
24	Interim claim threshold- dollars	\$500,000	Threshold defining interim claims in dollars		
25	Interim per diem amount	\$500	Per diem for pricing interim claims		
26	Pediatric mental health adjustor	1.00	Not used		
27	Neonate adjustor	1.00	Not used		
28	Pediatric adjustor (excludes ped MH, neonate, newborns)	1.00	Not used		
29	<b>APR-DRG INFORMATION</b>				
30	APR-DRG description	HIV W MULTIPLE MAJOR HIV RELATED CONDITIONS	Look up from DRG table		
31	Casemix relative weight--unadjusted	3.00131	Look up from DRG table		
32	Pediatric Medicaid Care Category	n/a	Not applicable		
33	Pediatric or Neonate Policy adjustor used (if applicable)	1.00	Not applicable		
34	Payment relative weight	3.00131	Casemix relative weight (E31) times policy adjustor (E33)		
35	National average length of stay for this APR-DRG	15.14	Look up from DRG table		
36	<b>IS THIS AN INTERIM CLAIM?</b>				
37	Is discharge status equal to 30?	No	Look up E14		
38	Is length of stay > interim claim threshold?	N/A	IF E37="Yes", then if (E9 > E23), "Yes", else "No", else "N/A"		
39	Are charges > interim claim threshold?	N/A	IF E37="Yes", then if (E7>E24), then "Yes", else "No", else "N/A"		
40	Skip to E69 for final interim claim payment amount	\$0	IF E38 or E39="Yes", (E9*E25), else 0		
41	<b>WHAT IS THE DRG BASE PAYMENT?</b>				
42	DRG base payment	\$74,159.46	Payment relative weight (E34) times hospital-specific base price w/IME (E15)		
43	<b>IS A TRANSFER PAYMENT ADJUSTMENT MADE?</b>				
44	Is a transfer adjustment potentially applicable?	Yes	Look up E10		
45	Calculated transfer payment adjustment	\$14,694.74	IF E44="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1), else "NA"		
46	Is transfer payment adjustment < DRG base payment so far?	Yes	IF E45 ="N/A" then ,"N/A", else if (E45<E42), then "Yes" else "No"		
47	Allowed amount after transfer adjustment	\$14,694.74	IF E46="Yes", then E45, else E42		
48	<b>IS A COST OUTLIER ADJUSTMENT MADE?</b>				
49	Estimated cost of this case	\$51,114.37	Est. cost = charges times CCR (E7 * E8)		
50	Is estimated cost > allowed amount	Loss	IF E49 > E47 then "Loss" else "Gain"		
51	<b>High-Side Outlier Payment When Payment Is Much Lower than Cost</b>				
52	Estimated loss on this case	\$36,419.63	IF E50 = "Loss", then est. cost minus allowed amount (E49-E47), else "N/A"		
53	Is estimated loss > outlier threshold	No	IF E50 = "Loss", then if loss > threshold (E52 > E20), then "Yes", else "No", else "N/A"		
54	DRG cost outlier payment increase	\$0.00	IF E53 = "Yes", then if loss is less than high-cost outlier threshold (E52<E20), then zero, else loss greater than high-cost threshold is multiplied times marginal cost threshold ((E52-E20)*E22), else 0		
55	<b>Low Side Outlier Payment When Payment Is Much Greater than Cost</b>				
56	Estimated gain on this case	N/A	IF E50="Gain", then (E47-E49), else "N/A"		
57	Is gain > outlier threshold	N/A	IF E50="Gain", then if gain> threshold (E56>E21), then "Yes", else "No", else "N/A"		
58	Calculated transfer payment adjustment	N/A	IF E57="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1), else "NA"		
59	Is transfer payment adjustment < DRG base payment so far?	N/A	IF E58 ="N/A" then ,"N/A", else if (E58<E42), then "Yes" else "No"		
60	Allowed amount after DRG cost outlier payment decrease	\$14,694.74	IF E50="Gain" and if E59="Yes", then pay transfer adjustment (E58), else E47		
61	<b>ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS</b>				
62	Allowed Amount	\$14,694.74	IF E50="Loss", then allowed amount + high side outlier payment (E47+E54), else low-side outlier payment (E60)		
63	<b>CALCULATION OF PAYMENT AND REIMBURSEMENT AMOUNT</b>				
64	Other health coverage	\$0.00	E12		
65	Patient share of cost	\$0.00	E13		
66	Payment amount	\$14,694.74	If interim claim (E40=0), then interim claim (E40) amount as payment amount. Otherwise, subtract other health coverage (E64) and patient share of cost (E65) from allowed amount (E62) to obtain payment amount.		
67	Capital Add-on amount	\$0.00	Not applicable		
68	DME add-on amount	\$0.00	Not applicable		
69	Reimbursed amount including add-ons	\$14,694.74	E69=E66+E67+E68, unless interim claim, in which case E69=E40		
10/1/2016					
This calculator spreadsheet is intended to be helpful to users, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.					
CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION October 1, 2016.					

## 2.3 High-Side Outlier Adjustment

This adjustment applies to stays that are exceptionally expensive for a hospital. Each stay is evaluated for whether it qualifies as a cost outlier stay. If so, the cost outlier payment is calculated. For high-side outliers, this increases payment.

- *Input* Total charges (cell E7): **\$450,000.00**
- *Input* Discharge status: **No**
- Because the estimated loss of this case (cell E52: \$102,690.54) exceeds the cost outlier threshold (cell E20: \$60,000), a cost adjustment is applicable.
- The threshold amount is subtracted from the estimated loss, and then multiplied by marginal cost percentage (cell E22: 80%). That amount is added to the previously allowed amount.
- See cells E52-54 for the high-side outlier adjustment calculation.
- DRG cost outlier payment increase (cell E54): \$34,152.43
- *Output* **Payment amount (cell E66): \$108,311.89**
- *Output* **Reimbursed amount (cell E69): \$108,311.89**

## 2.3.1 High-Side Outlier Adjustment Example

1	C	D	E	F	G
2	<b>DC Medicaid DRG Pricing Calculator</b>				
3	Note: This calculator does not reflect final decisions on the structure of the DC adult LTCH specialty hospital DRG payment method that will be implemented October 1, 2016.				
4	Indicates information to be input by the user (cells E7-E18). Look for an estimate of final payment in Cells E66 and E69.			Indicates payment policy parameters set by Medicaid (cells E20-E28). Check Tab 3-DRG Base Rate Addons for hospital-specific base rates and addons to use in calculator.	
5	Information	Data	Comments or Formula		
6	<b>INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER</b>				
7	Total charges	\$450,000.00	UB-04 Form Locator 47		
8	Cost-to-charge (CCR) ratio (Hospital-specific)	39.30%	Used to estimate the hospital's cost of this stay		
9	Length of stay	2	Used for transfer pricing adjustment		
10	Discharge status = 02, 05, 63, 65, 66, 82, 85, 91, 93, 94	No	Used for transfer pricing adjustment		
11	Patient age (in years)	59	Used for age adjustor		
12	Other health coverage	\$0.00	UB-04 Form Locator 54 for payments by third parties		
13	Patient share of cost	\$0.00	Includes spend-down or copayment		
14	Is discharge status equal to 30?	No	Indicates an interim claim		
15	DRG base rate (Hospital-specific including EDZ)	\$24,709.03	Used for DRG base payment--see 3-DRG base Rate Addons		
16	Capital add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
17	DME add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
18	APR-DRG	890-4	Assigned via separate APR-DRG grouping software		
19	<b>PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE</b>				
20	High-cost outlier threshold	\$60,000	Used for high-cost outlier adjustments		
21	Low-cost outlier threshold	\$25,000	Used for low-cost outlier adjustments		
22	Marginal cost percentage	80%	Used for high-cost outlier adjustments		
23	Interim claim threshold- days	30	Threshold defining interim claims in days		
24	Interim claim threshold- dollars	\$500,000	Threshold defining interim claims in dollars		
25	Interim per diem amount	\$500	Per diem for pricing interim claims		
26	Pediatric mental health adjustor	1.00	Not used		
27	Neonate adjustor	1.00	Not used		
28	Pediatric adjustor (excludes ped MH, neonate, newborns)	1.00	Not used		
29	<b>APR-DRG INFORMATION</b>				
30	APR-DRG description	HIV W MULTIPLE MAJOR HIV RELATED CONDITIONS	Look up from DRG table		
31	Casemix relative weight--unadjusted	3.00131	Look up from DRG table		
32	Pediatric Medicaid Care Category	n/a	Not applicable		
33	Pediatric or Neonate Policy adjustor used (if applicable)	1.00	Not applicable		
34	Payment relative weight	3.00131	Casemix relative weight (E31) times policy adjustor (E33)		
35	National average length of stay for this APR-DRG	15.14	Look up from DRG table		
36	<b>IS THIS AN INTERIM CLAIM?</b>				
37	Is discharge status equal to 30?	No	Look up E14		
38	Is length of stay > interim claim threshold?	N/A	IF E37="Yes", then if (E9 > E23), "Yes", else "No", else "N/A"		
39	Are charges > interim claim threshold?	N/A	IF E37="Yes", then if (E7>E24), then "Yes", else "No", else "N/A"		
40	Skip to E69 for final interim claim payment amount	\$0	IF E38 or E39="Yes", (E9"E25), else 0		
41	<b>WHAT IS THE DRG BASE PAYMENT?</b>				
42	DRG base payment	\$74,159.46	Payment relative weight (E34) times hospital-specific base price w/IME (E15)		
43	<b>IS A TRANSFER PAYMENT ADJUSTMENT MADE?</b>				
44	Is a transfer adjustment potentially applicable?	No	Look up E10		
45	Calculated transfer payment adjustment	N/A	IF E44="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1, else "NA"		
46	Is transfer payment adjustment < DRG base payment so far?	N/A	IF E45="N/A" then , "N/A", else if (E45<E42), then "Yes" else "No"		
47	Allowed amount after transfer adjustment	\$74,159.46	IF E46="Yes", then E45, else E42		
48	<b>IS A COST OUTLIER ADJUSTMENT MADE?</b>				
49	Estimated cost of this case	\$176,850.00	Est. cost = charges times CCR (E7 * E8)		
50	Is estimated cost > allowed amount	Loss	IF E49 > E47 then "Loss" else "Gain"		
51	<b>High-Side Outlier Payment When Payment Is Much Lower than Cost</b>				
52	Estimated loss on this case	\$102,690.54	IF E50 = "Loss", then est. cost minus allowed amount (E49-E47), else "N/A"		
53	Is estimated loss > outlier threshold	Yes	IF E50 = "Loss", then if loss > threshold (E52 > E20), then "Yes", else "No", else "N/A"		
54	DRG cost outlier payment increase	\$34,152.43	IF E53 = "Yes", then if loss is less than high-cost outlier threshold (E52<E20), then zero, else loss greater than high-cost threshold is multiplied times marginal cost threshold ((E52-E20)*E22), else 0		
55	<b>Low Side Outlier Payment When Payment Is Much Greater than Cost</b>				
56	Estimated gain on this case	N/A	IF E50="Gain", then (E47-E49), else "N/A"		
57	Is gain > outlier threshold	N/A	IF E50="Gain", then if gain> threshold (E56>E21), then "Yes", else "No", else "N/A"		
58	Calculated transfer payment adjustment	N/A	IF E57="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1, else "NA"		
59	Is transfer payment adjustment < DRG base payment so far?	N/A	IF E58="N/A" then , "N/A", else if (E58<E42), then "Yes" else "No"		
60	Allowed amount after DRG cost outlier payment decrease	\$74,159.46	IF E50="Gain" and if E59="Yes", then pay transfer adjustment (E58), else E47		
61	<b>ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS</b>				
62	Allowed Amount	\$108,311.89	IF E50="Loss", then allowed amount + high side outlier payment (E47+E54), else low-side outlier payment (E60)		
63	<b>CALCULATION OF PAYMENT AND REIMBURSEMENT AMOUNT</b>				
64	Other health coverage	\$0.00	E12		
65	Patient share of cost	\$0.00	E13		
66	Payment amount	\$108,311.89	If interim claim (E40>0), then interim claim (E40) amount as payment amount. Otherwise, subtract other health coverage (E64) and patient share of cost (E65) from allowed amount (E62) to obtain payment amount.		
67	Capital Add-on amount	\$0.00	Not applicable		
68	DME add-on amount	\$0.00	Not applicable		
69	Reimbursed amount including add-ons	\$108,311.89	E69=E66+E67+E68, unless interim claim, in which case E69=E40		
10/1/2016	This calculator spreadsheet is intended to be helpful to users, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.				
CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION October 1, 2016.					

## 2.4 Low-Side Outlier Adjustment

Just as outlier payments are intended to increase payment when a stay is extraordinarily and unpredictably expensive, the low-side outlier adjustment decreases funding when a stay is extraordinarily and unpredictably inexpensive. This adjustment applies when payment would be much greater than cost and the hospital stands to make a large gain. It reduces the payment amount allowed to providers.

These claims would be priced using the same algorithm as a transfer case (per diem based on claim length of stay compared to average length of stay for the DRG category). For a low-cost outlier, the adjustment calculation is based on the length of stay (LOS) for the hospital stay as compared to the national average length of stay (ALOS). The calculation is the same as the calculation for the transfer policy. This calculation results in the final DRG payment if it is less than the original DRG payment

The base payment is calculated by multiplying the base rate times the relative weight associated with the DRG. The national average length of stay is taken from a system table and used to calculate a transfer payment. Since this is less than the straight base payment, the transfer payment is paid subject to other add-ons and adjustments.

- *Input* Total charges (cell E7): **\$45,000.00**
- *Input* APR-DRG (cell E16): **890-4**
- *Input* Length of Stay (cell E9): **10**
- Estimated gain (cell E56: \$56,474.46) exceeds the low-cost outlier threshold (cell E21: \$25,000)
- Allowed amount before outlier adjustment (cell E47): \$74,159.46
- *Output* **Payment amount (cell E66): \$53,880.72**
- *Output* **Reimbursed amount (cell E69): \$53,880.72**

## 2.4.1 Low-Side Outlier Adjustment Example

	C	D	E	F	G
2	<b>DC Medicaid DRG Pricing Calculator</b>				
3	Note: This calculator does not reflect final decisions on the structure of the DC adult LTCH specialty hospital DRG payment method that will be implemented October 1, 2016.				
4	Indicates information to be input by the user (cells E7-E18). Look for an estimate of final payment in Cells E66 and E69.		Indicates payment policy parameters set by Medicaid (cells E20-E28). Check Tab 3-DRG Base Rate Addons for hospital-specific base rates and add-ons to use in calculator.		
5	Information	Data	Comments or Formula		
6	<b>INFORMATION FROM THE HOSPITAL- TO BE INPUT BY THE USER</b>				
7	Total charges	\$45,000.00	UB-04 Form Locator 47		
8	Cost-to-charge (CCR) ratio (Hospital-specific)	39.30%	Used to estimate the hospital's cost of this stay		
9	Length of stay	10	Used for transfer pricing adjustment		
10	Discharge status = 02, 05, 63, 65, 66, 82, 85, 91, 93, 94	No	Used for transfer pricing adjustment		
11	Patient age (in years)	59	Used for age adjustor		
12	Other health coverage	\$0.00	UB-04 Form Locator 54 for payments by third parties		
13	Patient share of cost	\$0.00	Includes spend-down or copayment		
14	Is discharge status equal to 30?	No	Indicates an interim claim		
15	DRG base rate (Hospital-specific including EDZ)	\$24,709.03	Used for DRG base payment--see 3-DRG base Rate Addons		
16	Capital add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
17	DME add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
18	APR-DRG	890-4	Assigned via separate APR-DRG grouping software		
19	<b>PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE</b>				
20	High-cost outlier threshold	\$60,000	Used for high-cost outlier adjustments		
21	Low-cost outlier threshold	\$25,000	Used for low-cost outlier adjustments		
22	Marginal cost percentage	80%	Used for high-cost outlier adjustments		
23	Interim claim threshold- days	30	Threshold defining interim claims in days		
24	Interim claim threshold- dollars	\$500,000	Threshold defining interim claims in dollars		
25	Interim per diem amount	\$500	Per diem for pricing interim claims		
26	Pediatric mental health adjustor	1.00	Not used		
27	Neonate adjustor	1.00	Not used		
28	Pediatric adjustor (excludes ped MH, neonate, newborns)	1.00	Not used		
29	<b>APR-DRG INFORMATION</b>				
30	APR-DRG description	HIV W MULTIPLE MAJOR HIV RELATED CONDITIONS	Look up from DRG table		
31	Casemix relative weight--unadjusted	3.00131	Look up from DRG table		
32	Pediatric Medicaid Care Category	n/a	Not applicable		
33	Pediatric or Neonate Policy adjustor used (if applicable)	1.00	Not applicable		
34	Payment relative weight	3.00131	Casemix relative weight (E31) times policy adjustor (E33)		
35	National average length of stay for this APR-DRG	15.14	Look up from DRG table		
36	<b>IS THIS AN INTERIM CLAIM?</b>				
37	Is discharge status equal to 30?	No	Look up E14		
38	Is length of stay > interim claim threshold?	N/A	IF E37="Yes", then if (E9 > E23), "Yes", else "No", else "N/A"		
39	Are charges > interim claim threshold?	N/A	IF E37="Yes", then if (E7>E24), then "Yes", else "No", else "N/A"		
40	Skip to E69 for final interim claim payment amount	\$0	IF E38 or E39="Yes", (E9*E25), else 0		
41	<b>WHAT IS THE DRG BASE PAYMENT?</b>				
42	DRG base payment	\$74,159.46	Payment relative weight (E34) times hospital-specific base price w/IME (E15)		
43	<b>IS A TRANSFER PAYMENT ADJUSTMENT MADE?</b>				
44	Is a transfer adjustment potentially applicable?	No	Look up E10		
45	Calculated transfer payment adjustment	N/A	IF E44="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1, else "NA"		
46	Is transfer payment adjustment < DRG base payment so far?	N/A	IF E45="N/A" then "N/A", else if (E45<E42), then "Yes" else "No"		
47	Allowed amount after transfer adjustment	\$74,159.46	IF E46="Yes", then E45, else E42		
48	<b>IS A COST OUTLIER ADJUSTMENT MADE?</b>				
49	Estimated cost of this case	\$17,685.00	Est. cost = charges times CCR (E7 * E8)		
50	Is estimated cost > allowed amount	Gain	IF E49 > E47 then "Loss" else "Gain"		
51	<b>High-Side Outlier Payment When Payment Is Much Lower than Cost</b>				
52	Estimated loss on this case	N/A	IF E50 = "Loss", then est. cost minus allowed amount (E49-E47), else "N/A"		
53	Is estimated loss > outlier threshold	N/A	IF E50 = "Loss", then if loss > threshold (E52 > E20), then "Yes", else "No", else "N/A"		
54	DRG cost outlier payment increase	\$0.00	IF E53 = "Yes", then if loss is less than high-cost outlier threshold (E52<E20), then zero, else loss greater than high-cost threshold is multiplied times marginal cost threshold ((E52-E20)*E22), else 0		
55	<b>Low Side Outlier Payment When Payment Is Much Greater than Cost</b>				
56	Estimated gain on this case	\$56,474.46	IF E50="Gain", then (E47-E49), else "N/A"		
57	Is gain > outlier threshold	Yes	IF E50="Gain", then if gain> threshold (E56>E21), then "Yes", else "No", else "N/A"		
58	Calculated transfer payment adjustment	\$53,880.72	IF E57="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1, else "NA"		
59	Is transfer payment adjustment < DRG base payment so far?	Yes	IF E58 = "N/A" then "N/A", else if (E58<E42), then "Yes" else "No"		
60	Allowed amount after DRG cost outlier payment decrease	\$53,880.72	IF E50="Gain" and if E59="Yes", then pay transfer adjustment (E58), else E47		
61	<b>ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS</b>				
62	Allowed Amount	\$53,880.72	IF E50="Loss", then allowed amount + high side outlier payment (E47+E54), else low-side outlier payment (E60)		
63	<b>CALCULATION OF PAYMENT AND REIMBURSEMENT AMOUNT</b>				
64	Other health coverage	\$0.00	E12		
65	Patient share of cost	\$0.00	E13		
66	Payment amount	\$53,880.72	If interim claim (E40>0), then interim claim (E40) amount as payment amount. Otherwise, subtract other health coverage (E64) and patient share of cost (E65) from allowed amount (E62) to obtain payment amount.		
67	Capital Add-on amount	\$0.00	Not applicable		
68	DME add-on amount	\$0.00	Not applicable		
69	Reimbursed amount including add-ons	\$53,880.72	E69=E66+E67+E68, unless interim claim, in which case E69=E40		
10/1/2016	This calculator spreadsheet is intended to be helpful to users, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.				
CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION October 1, 2016.					

## 2.5 Interim Claim

When the beneficiary is still a patient and the actual length of stay is greater than 30 days or charges are greater than \$500,000, a hospital may choose to submit an interim claim. Submission of interim claims is always voluntary, never mandatory. In these situations, hospitals will be paid a per diem amount (cell E25: \$500.00). When the patient is discharged, the hospital voids the previous interim claims and submits one claim, admit through discharge showing all charges, diagnoses and procedures for the full admit-thru-discharge period.

- *Input* Total charges (cell E7): **\$75,000.00**
- *Input* Length of Stay (cell E9): **31**
- *Input* Is discharge status equal to 30? (cell E14): **“Yes”**
- *Input* APR-DRG (cell E16): **890-4**
- The interim per diem amount (cell E25: \$500.00) is multiplied by the actual length of stay (cell E9)
- That amount is the allowed payment to the provider
- *Output* **Payment amount (cell E66): \$15,500.00**
- *Output* **Reimbursement amount (cell E69): \$15,500.00**

## 2.5.1 Interim Claim Example

1	C	D	E	F	G
2	<b>DC Medicaid DRG Pricing Calculator</b>				
3	<i>Note: This calculator does not reflect final decisions on the structure of the DC adult LTCH specialty hospital DRG payment method that will be implemented October 1, 2016.</i>				
4	<i>Indicates information to be input by the user (cells E7-E18). Look for an estimate of final payment in Cells E66 and E69.</i>			<i>Indicates payment policy parameters set by Medicaid (cells E20-E28). Check Tab 3-DRG Base Rate Addons for hospital-specific base rates and add-ons to use in calculator.</i>	
5	Information	Data	Comments or Formula		
6	<b>INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER</b>				
7	Total charges	\$75,000.00	UB-04 Form Locator 47		
8	Cost-to-charge (CCR) ratio (Hospital-specific)	39.30%	Used to estimate the hospital's cost of this stay		
9	Length of stay	31	Used for transfer pricing adjustment		
10	Discharge status = 02, 05, 63, 65, 66, 82, 85, 91, 93, 94	No	Used for transfer pricing adjustment		
11	Patient age (in years)	59	Used for age adjustor		
12	Other health coverage	\$0.00	UB-04 Form Locator 54 for payments by third parties		
13	Patient share of cost	\$0.00	Includes spend-down or copayment		
14	Is discharge status equal to 30?	Yes	Indicates an interim claim		
15	DRG base rate (Hospital-specific including EDZ)	\$24,709.03	Used for DRG base payment--see 3-DRG base Rate Addons		
16	Capital add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
17	DME add-on payment (Hospital-specific)	\$0.00	Not applicable for adult LTCH specialty hospitals		
18	APR-DRG	890-4	Assigned via separate APR-DRG grouping software		
19	<b>PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE</b>				
20	High-cost outlier threshold	\$60,000	Used for high-cost outlier adjustments		
21	Low-cost outlier threshold	\$25,000	Used for low-cost outlier adjustments		
22	Marginal cost percentage	80%	Used for high-cost outlier adjustments		
23	Interim claim threshold- days	30	Threshold defining interim claims in days		
24	Interim claim threshold- dollars	\$500,000	Threshold defining interim claims in dollars		
25	Interim per diem amount	\$500	Per diem for pricing interim claims		
26	Pediatric mental health adjustor	1.00	Not used		
27	Neonate adjustor	1.00	Not used		
28	Pediatric adjustor (excludes ped MH, neonate, newborns)	1.00	Not used		
29	<b>APR-DRG INFORMATION</b>				
30	APR-DRG description	HIV W MULTIPLE MAJOR HIV RELATED CONDITIONS	Look up from DRG table		
31	Casemix relative weight--unadjusted	3.00131	Look up from DRG table		
32	Pediatric Medicaid Care Category	n/a	Not applicable		
33	Pediatric or Neonate Policy adjustor used (if applicable)	1.00	Not applicable		
34	Payment relative weight	3.00131	Casemix relative weight (E31) times policy adjustor (E33)		
35	National average length of stay for this APR-DRG	15.14	Look up from DRG table		
36	<b>IS THIS AN INTERIM CLAIM?</b>				
37	Is discharge status equal to 30?	Yes	Look up E14		
38	Is length of stay > interim claim threshold?	Yes	IF E37="Yes", then if (E9 > E23), "Yes", else "No", else "N/A"		
39	Are charges > interim claim threshold?	No	IF E37="Yes", then if (E7>E24), then "Yes", else "No", else "N/A"		
40	Skip to E69 for final interim claim payment amount	\$15,500	IF E38 or E39="Yes", (E9*E25), else 0		
41	<b>WHAT IS THE DRG BASE PAYMENT?</b>				
42	DRG base payment	\$74,159.46	Payment relative weight (E34) times hospital-specific base price w/IME (E15)		
43	<b>IS A TRANSFER PAYMENT ADJUSTMENT MADE?</b>				
44	Is a transfer adjustment potentially applicable?	No	Look up E10		
45	Calculated transfer payment adjustment	N/A	IF E44="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1), else "NA"		
46	Is transfer payment adjustment < DRG base payment so far?	N/A	IF E45 = "N/A" then "N/A", else if (E45<E42), then "Yes" else "No"		
47	Allowed amount after transfer adjustment	\$74,159.46	IF E46= "Yes", then E45, else E42		
48	<b>IS A COST OUTLIER ADJUSTMENT MADE?</b>				
49	Estimated cost of this case	\$29,475.00	Est. cost = charges times CCR (E7 * E8)		
50	Is estimated cost > allowed amount	Gain	IF E49 > E47 then "Loss" else "Gain"		
51	<b>High-Side Outlier Payment When Payment Is Much Lower than Cost</b>				
52	Estimated loss on this case	N/A	IF E50 = "Loss", then est. cost minus allowed amount (E49-E47), else "N/A"		
53	Is estimated loss > outlier threshold	N/A	IF E50 = "Loss", then if loss > threshold (E52 > E20), then "Yes", else "No", else "N/A"		
54	DRG cost outlier payment increase	\$0.00	IF E53 = "Yes", then if loss is less than high-cost outlier threshold (E52<E20), then zero, else loss greater than high-cost threshold is multiplied times marginal cost threshold ((E52-E20)*E22), else 0		
55	<b>Low Side Outlier Payment When Payment Is Much Greater than Cost</b>				
56	Estimated gain on this case	\$44,684.46	IF E50="Gain", then (E47-E49), else"N/A"		
57	Is gain > outlier threshold	Yes	IF E50="Gain", then if gain> threshold (E56>E21), then "Yes", else "No", else "N/A"		
58	Calculated transfer payment adjustment	\$156,743.90	IF E57="Yes", then base payment(E42)/nat. ALOS (E35) times LOS (E9)+1), else "NA"		
59	Is transfer payment adjustment < DRG base payment so far?	No	IF E58 = "N/A" then "N/A", else if (E58<E42), then "Yes" else "No"		
60	Allowed amount after DRG cost outlier payment decrease	\$74,159.46	IF E50="Gain" and if E59="Yes", then pay transfer adjustment (E58), else E47		
61	<b>ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS</b>				
62	Allowed Amount	\$74,159.46	IF E50="Loss", then allowed amount + high side outlier payment (E47+E54), else low-side outlier payment (E60)		
63	<b>CALCULATION OF PAYMENT AND REIMBURSEMENT AMOUNT</b>				
64	Other health coverage	\$0.00	E12		
65	Patient share of cost	\$0.00	E13		
66	Payment amount	\$15,500.00	If interim claim (E40>0), then interim claim (E40) amount as payment amount. Otherwise, subtract other health coverage (E64) and patient share of cost (E65) from allowed amount (E62) to obtain payment amount.		
67	Capital Add-on amount	\$0.00	Not applicable		
68	DME add-on amount	\$0.00	Not applicable		
69	Reimbursed amount including add-ons	\$15,500.00	E69=E66+E67+E68, unless interim claim, in which case E69=E40		
10/1/2016	This calculator spreadsheet is intended to be helpful to users, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.				
CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION October 1, 2016.					

## 2.6 Conclusion

This concludes the specific examples for training on use of the DRG calculator. Please feel free to apply to other examples. If you have questions, please contact Jeff Gray at [jeff.gray2@xerox.com](mailto:jeff.gray2@xerox.com).