



CQO:
The Health Care
Supply Chain

Non-Labor Supply Expense Per Case Mix Index (CMI) Adjusted Patient Days (APD)



Purpose:

Measure a hospital/system's total non-labor supply expense including supplies, pharma, freight management and purchased services, per case mix index (CMI) adjusted patient days (APD).

Value:

Enables supply chain teams and user departments to measure trends and identify opportunities for quality improvement and cost reduction at the organization or department level.

Equation:

Firstly, sum Total Supply Expense and Total Purchased Services Expense to arrive at your 'Total non-labor supply expense'. To calculate this Key, divide this Total non-labor supply expense by the **Number of Case Mix Index Adjusted Patient Days (CMI APD)**.

$$\begin{array}{r} \text{Total non-labor supply expense} \\ \div \\ \text{Number of Case Mix Index Adjusted Patient Days (CMI APD)} \\ = \\ \text{Non-Labor Supply Expense Per Case Mix Index (CMI) Adjusted Patient Days (APD)} \end{array}$$

Note: it is favorable to have a lower value for this Key. The lower the value the better.

Example:

- A hospital's total supply expense is \$15,000,000
- The hospital's total pharma expense is \$20,000,000
- Its total purchased services expense is \$30,000,000
- Its Case Mix Index (CMI) Adjusted Patient Days (APD) is 150,000

$(\$15,000,000 + \$20,000,000 + \$30,000,000) = \$65,000,000$ Total non-labor supply expense

$\$65,000,000 \div 150,000 \text{ CMI APD} = \433.33 Non-Labor Supply Expense Per Case Mix Index (CMI) Adjusted Patient Days (APD)



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Input Descriptions and Sources:

Input Name	Includes	Excludes
Total supply expense	All medical, non-medical, inventory and direct-ship/on-consignment supply expense. For medical, include expenses for Surgery, Cath Lab, EP Lab, Interventional Radiology and Interventional GI departments. For non-medical, include Office Supplies, Purchased Services, Facilities, Information Technology, Maintenance, etc. For consignment expenses, include freight, standard distribution costs and sales-and-use tax (minus rebates). Refer to AHRMM/HFMA supply categories for further details.	Purchased services, labor and labor-related expenses and services (salaries, bonuses), real estate, physician payments, capital, utilities, some tangible items that are frequently provided as part of service costs (e.g. toner that is part of a print contract), taxes, reimbursements to individuals or contractors, insurance, bad debt, depreciation.
Total purchased services expense	All Purchased Services expenses (clinical and non-clinical) such as Facilities, Information Technology, Maintenance, etc.	Taxes, Salaries and bonuses, Charitable contributions, Dividends, securities, interest payments, Stock repurchases, Organizational memberships.
Number of Case Mix Index Adjusted Patient Days (CMI APD)	The Case Mix Index (CMI) per Adjusted Patient Days (APD) can be obtained from your Finance department.	

Points of Clarification:

- This indicator includes the net cost of all tangible items that are expensed, including freight, standard distribution cost, and sales and use tax, minus rebates
- In comparing with previous calculations or with others, ensure total spend is included and not just supply expense
- The total non-labor spend can be shown per: CMI APD, CMI adjusted discharge and as a percent of net patient revenue
- Comparing supply expense per CMI and APD allows for a more accurate measure of specific service lines, surgical case spend and differences in patient volumes

References:

- Hospitals Could Save \$23 Billion Annually by Streamlining Supply Chain Operations Product Use. Navigant Analysis – [Business Wire](#). September 13, 2017.