



**Hospital Price Transparency:
Encoding the January 1, 2025 Requirements in the
Machine-Readable File & Tips for Implementation**

Monday, December 9, 2024

Carmen Irwin
Centers for Medicare & Medicaid Services



hfma™



A MEDICARE LEARNING NETWORK® (MLN) EVENT

Hospital Price Transparency: Encoding the January 1, 2025 Requirements in the Machine- Readable File & Tips for Implementation

December 9, 2024

Presenter:

Carmen Irwin

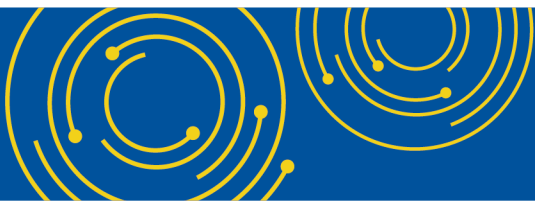
Centers for Medicare & Medicaid Services



Disclaimer

This presentation was current at the time it was published or uploaded onto the web. Medicare policy changes frequently so links to the source documents have been provided within the document for your reference.

This presentation was prepared as a service to the public and is not intended to grant rights or impose obligations. This presentation may contain references or links to statutes, regulations, or other policy materials. The information provided is only intended to be a general summary. It is not intended to take the place of either the written law or regulations. We encourage readers to review the specific statutes, regulations, and other interpretive materials for a full and accurate statement of their contents.



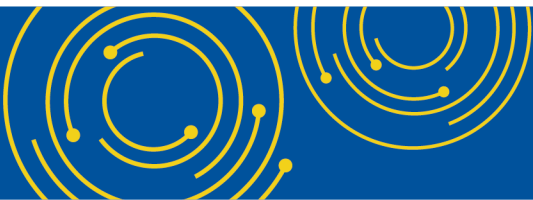
Hospital Price Transparency Regulation Introduction

- The Hospital Price Transparency regulation implements Section 2718(e) of the [Public Health Service Act](#) and requires each hospital operating within the United States to establish (and update) and make public a yearly list of the hospital's standard charges for items and services provided by the hospital, including for diagnosis-related groups established under section 1886(d)(4) of the Social Security Act.
- Starting on January 1, 2021, each hospital operating in the United States was required to make this information available in two ways:

As a comprehensive machine-readable file (MRF) with all standard charges for all items and services

AND

As a display of standard charges for 300 shoppable services in a consumer-friendly format



CY 2024 OPPS/ASC Final Rule Regulatory Updates

CMS finalized new [Hospital Price Transparency](#) requirements in the [CY 2024 Hospital Outpatient Prospective Payment System and Ambulatory Surgical Center Payment System Final Rule](#). These new requirements include:

January 1, 2024

Improving Access to Hospital Machine-Readable Files (MRFs): Hospital websites must include a TXT file in the root folder with MRF and contact information (45 CFR 180.50(d)(6)(i)). Hospitals must place a 'footer' at the bottom of the hospital's homepage that links to the webpage that includes the machine-readable file (45 CFR 180.50(d)(6)(ii)).

July 1, 2024

New Data Elements and Format Standardization:

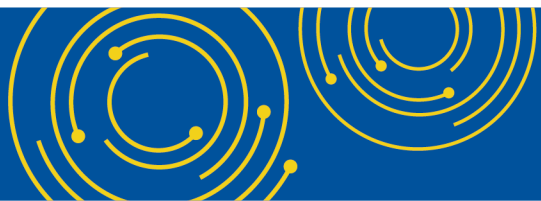
- Hospital MRFs must conform to the CMS template layout and data specifications (180.50(c)(2)).
- Expanded set of data elements including, as applicable: hospital and MRF information, each type of standard charge (including payer-specific negotiated charges by payer and plan), item/service description, relevant billing codes (180.50(b)(2)).
- Hospital must affirm that it has included all applicable standard charge information in the MRF, and that the information encoded is true, accurate, and complete (180.50(a)(3)(ii)).

January 1, 2025

Additional Required Data Elements: Hospitals must encode additional new data elements including: 'Estimated Allowed Amount', 'Drug Unit of Measurement', 'Drug Type of Measurement', and 'Modifiers'.



HPT Resources



Building Your MRF



**Review HPT
Resources**



**Select
a Template**



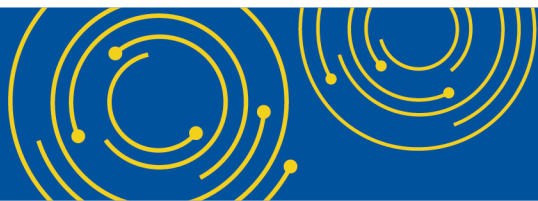
**Follow the Data
Dictionary**



**Reference the
Examples**



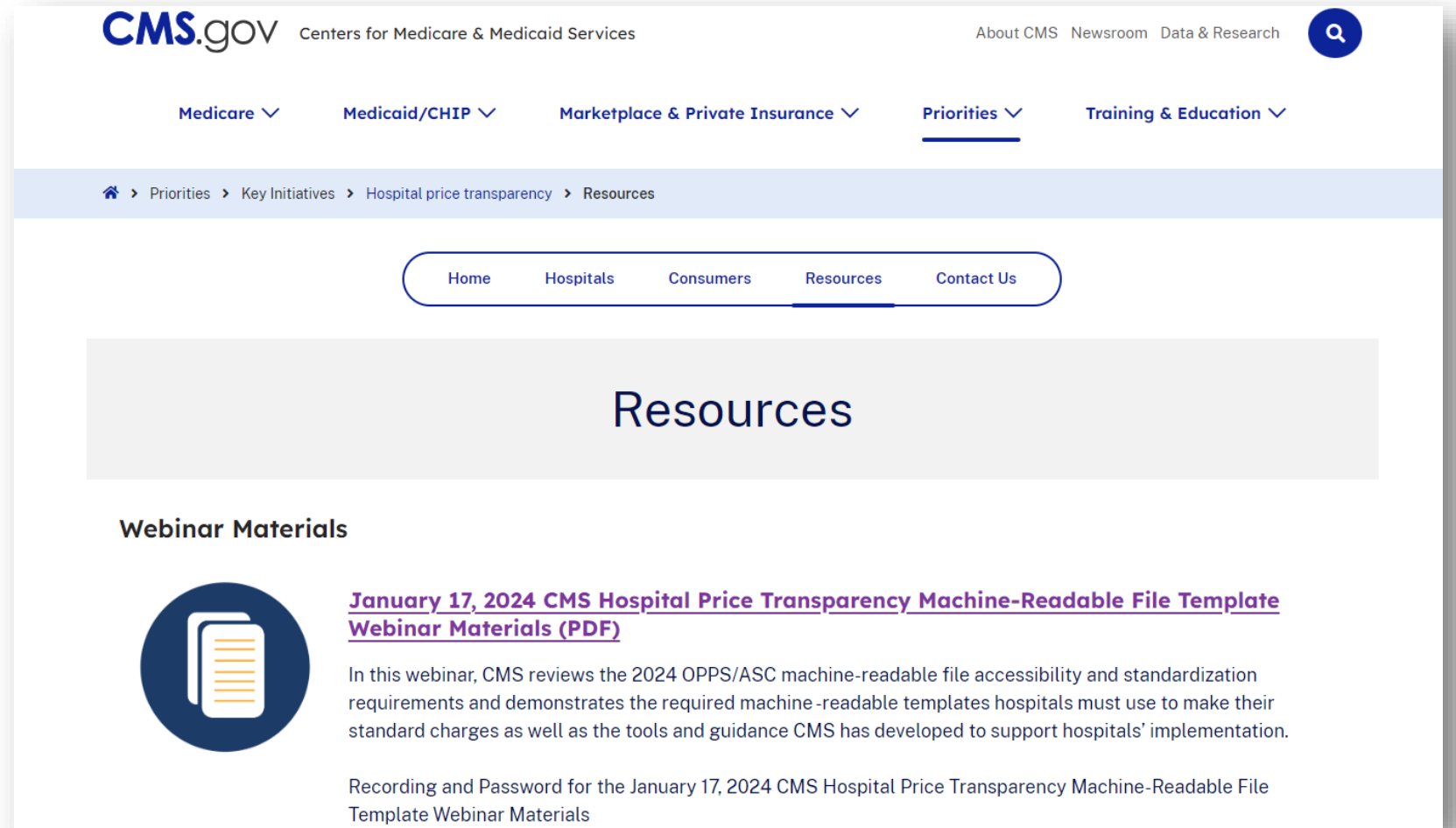
**Check Work with
HPT Tools**



Review HPT Resources

Review the CMS HPT Website Resources Page for links to guidance in the form of:

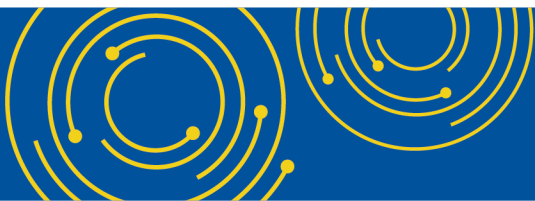
- FAQs
- Step-by-Step guides
- Links to HPT GitHub-based tools and the HPT Data Dictionary GitHub Repository
- Webinar Recordings



The screenshot shows the CMS.gov website with the following structure:

- Header: CMS.gov | Centers for Medicare & Medicaid Services | About CMS | Newsroom | Data & Research | Search icon
- Navigation: Medicare | Medicaid/CHIP | Marketplace & Private Insurance | **Priorities** | Training & Education
- Breadcrumbs: Home > Priorities > Key Initiatives > Hospital price transparency > Resources
- Sub-navigation: Home | Hospitals | Consumers | **Resources** | Contact Us
- Section: **Resources**
- Section: **Webinar Materials**
- Item: **January 17, 2024 CMS Hospital Price Transparency Machine-Readable File Template Webinar Materials (PDF)**
- Description: In this webinar, CMS reviews the 2024 OPPS/ASC machine-readable file accessibility and standardization requirements and demonstrates the required machine-readable templates hospitals must use to make their standard charges as well as the tools and guidance CMS has developed to support hospitals' implementation.
- Recording and Password for the January 17, 2024 CMS Hospital Price Transparency Machine-Readable File Template Webinar Materials

<https://www.cms.gov/priorities/key-initiatives/hospital-price-transparency/resources>



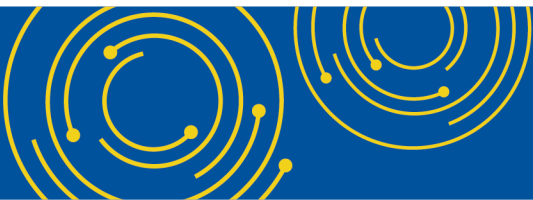
Select a Template

Navigate to the CMS Hospital Price Transparency Data Dictionary GitHub Repository to review and select one of the three required template layouts:

- CSV Wide
- CSV Tall
- JSON

The screenshot shows the GitHub repository page for CMSgov/hospital-price-transparency. The repository is public and has 114 commits. The file list includes documentation, examples, resources, .gitignore, README.md, and VERSION.md. The README file is selected, showing a logo with a dollar sign and the text "Hospital Price Transparency". The right sidebar shows repository statistics: 53 stars, 88 watching, and 4 forks. Contributors listed are shaselton-usds, carrils, and mint-thompson.

<https://github.com/CMSgov/hospital-price-transparency>



Follow the Data Dictionary

Navigate to the data dictionary, located on GitHub, for detailed technical specifications on how to encode your data in your selected CMS template.

The screenshot shows the GitHub repository page for `CMSgov/hospital-price-transparency`. The left sidebar displays the file tree with the `documentation/CSV` directory selected. The main content area shows the commit history for the `CSV` directory, with the most recent commit by `mint-thompson` titled "Update headers for drug type and code type tables". Below the commit history, the `README.md` file is displayed, containing the following text:

Hospital Price Transparency CSV Data Dictionary

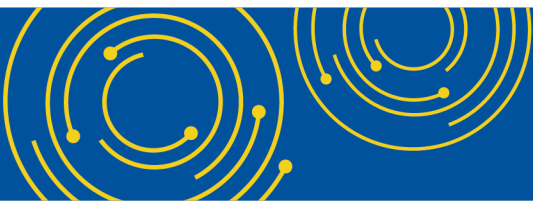
Review this entire data dictionary for how to disclose data elements in CSV and find the [CSV "Tall" template here](#) and [CSV "Wide" template here](#) to begin building your hospital MRF. For an explanation of how to interpret the data element tables, review the [How to Read the Data Dictionary Tables](#) information.

General CSV Instructions

Developers of machine-readable files (MRFs) should generally consider and adopt established standards and industry norms for CSV files when creating the MRF. For more information on CSV standards visit <https://www.rfc-editor.org/rfc/rfc4180>.

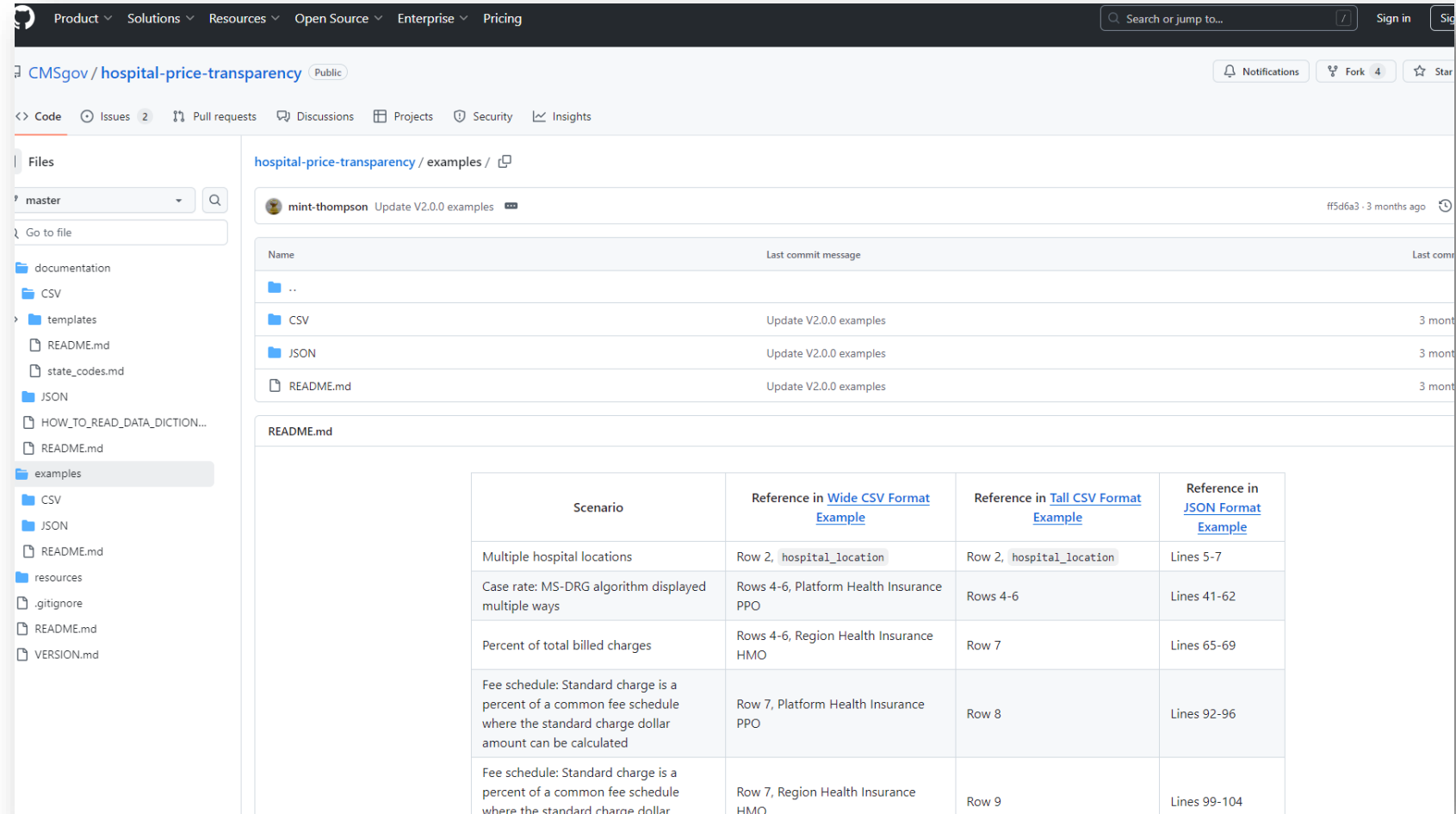
For CSV, hospitals may choose either a "wide" or "tall" layout. The CSV MRF must be saved as plaintext data separated by commas (",") and not use other delimiters. Below are additional reminders to avoid common errors in MRFs:

<https://github.com/CMSgov/hospital-price-transparency/tree/master/documentation>



Reference the Examples

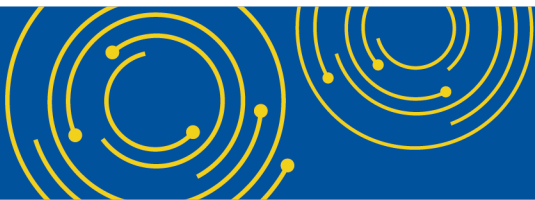
On the CMS Hospital Price Transparency - Data Dictionary GitHub repository, we have provided examples, in both CSV and JSON formats, on how to encode time-based services, unit-based charges and service packages.



The screenshot shows the GitHub repository for CMSgov/hospital-price-transparency. The left sidebar displays the file structure, including folders for documentation, templates, examples, and resources. The main content area shows the 'examples' directory with a table of scenarios and their corresponding references in CSV and JSON formats.

Scenario	Reference in Wide CSV Format Example	Reference in Tall CSV Format Example	Reference in JSON Format Example
Multiple hospital locations	Row 2, <code>hospital_location</code>	Row 2, <code>hospital_location</code>	Lines 5-7
Case rate: MS-DRG algorithm displayed multiple ways	Rows 4-6, Platform Health Insurance PPO	Rows 4-6	Lines 41-62
Percent of total billed charges	Rows 4-6, Region Health Insurance HMO	Row 7	Lines 65-69
Fee schedule: Standard charge is a percent of a common fee schedule where the standard charge dollar amount can be calculated	Row 7, Platform Health Insurance PPO	Row 8	Lines 92-96
Fee schedule: Standard charge is a percent of a common fee schedule where the standard charge dollar	Row 7, Region Health Insurance HMO	Row 9	Lines 99-104

<https://github.com/CMSgov/hospital-price-transparency/tree/master/examples>




Check Work with HPT Tools

Navigate to the CMS HPT Tools.IO GitHub page to use:

- Online Validator
- CLI Validator
- MRF Naming Wizard
- TXT File Generator

Hospital Price Transparency Tools Online Validator MRF Naming Wizard TXT File Generator

 **Hospital Price Transparency TOOLS**





The Centers for Medicare and Medicaid Services (CMS) has developed and maintains tools to support hospitals in meeting some of the machine-readable file (MRF) requirements for Hospital Price Transparency.

The **online validator** tests machine readable files against the required CMS template layouts and data specifications ([45 CFR 180.50\(c\)\(2\)](#)). The online validator runs in a user's web browser, and it is recommended for nontechnical users.

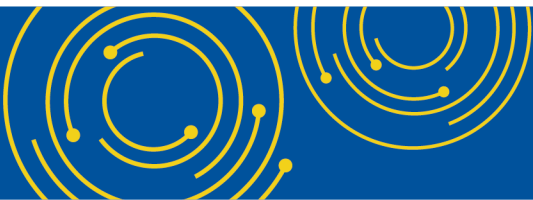
The **command-line interface (CLI) validator** tests machine readable files against the required CMS template layouts and data specifications ([45 CFR 180.50\(c\)\(2\)](#)). The CLI is a downloaded tool that runs locally in the user's terminal, and it is recommended for technically proficient users validating multiple files simultaneously or integrating the validator into a software pipeline.

The **MRF naming wizard** assists users in generating the MRF file name in accordance with the naming convention requirements ([45 CFR 180.50\(d\)\(5\)](#)).

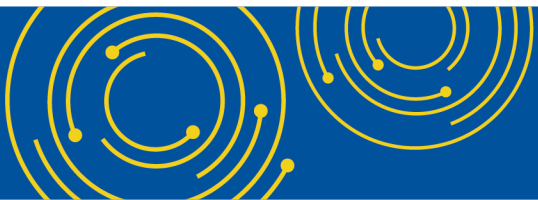
The **TXT file generator** assists users in generating a TXT file with the required attributes of information to improve accessibility to MRFs ([45 CFR 180.50\(d\)\(6\)\(i\)](#)).

 ONLINE VALIDATOR  CLI VALIDATOR  MRF NAMING WIZARD  TXT FILE GENERATOR

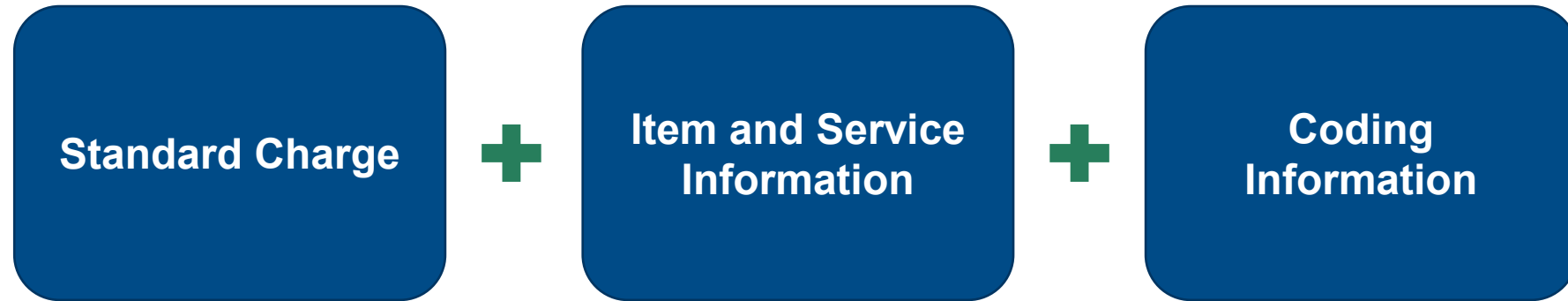
<https://cms.gov/github.io/hpt-tool/>



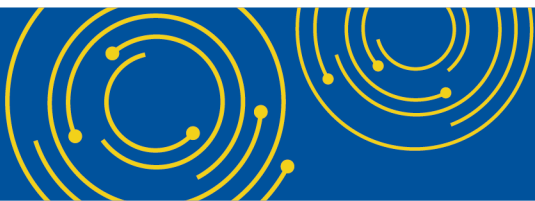
January 1, 2025 MRF Requirements



Data Elements Create Context for Hospital Standard Charges



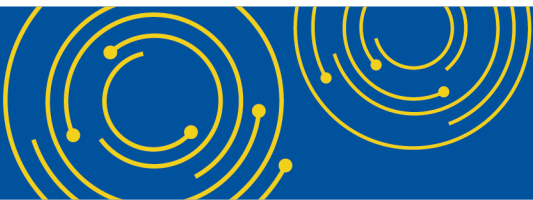
‘Data elements’ are information or categories of information that you will use to contextualize the standard charges your hospital has established.



Three Ways to Display Payer-specific Standard Charges

'Payer-specific Negotiated Charge' Data Elements:	Description
Dollar Amount	Payer-specific negotiated charge (expressed as a dollar amount) that a hospital has negotiated with a third-party payer for a corresponding item or service.
Percentage	Payer-specific negotiated charge (expressed as a percentage) that a hospital has negotiated with a third-party payer for a corresponding item or service. This data element will contain the numeric representation of the percentage not as a decimal (70.5% is to be entered as "70.5" and not ".705").
Algorithm	Payer-specific negotiated charge (expressed as an algorithm) that a hospital has negotiated with a third-party payer for the corresponding item or service.

Display a payer-specific negotiated charge as a dollar amount whenever possible. If the payer-specific negotiated charge results in a variable dollar amount for members of a payer/plan combination, then display the payer-specific negotiated charge as a percentage or algorithm and calculate the 'Estimated Allowed Amount' in dollars.

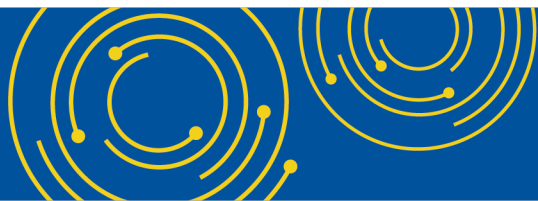


Payer-specific Negotiated Charge Contextual Information

Required Contextual Information: For each ‘payer-specific standard charge’ your hospital has established, you must encode a ‘standard charge methodology’.

‘Standard Charge Methodology’ Data Element:

Valid Values	Methodology Description
Case Rate	A flat rate for a package of items and services triggered by a diagnosis, treatment, or condition for a designated length of time.
Fee Schedule	The payer-specific negotiated charge is based on a fee schedule. Examples of common fee schedules include Medicare, Medicaid, commercial payer, and workers compensation.
Percent of Total Billed Charge	The payer-specific negotiated charge is based on a percentage of the total billed charges for an item or service. This percentage may vary depending on certain pre-determined criteria being met.
Per diem	The per day charge for providing hospital items and services.
Other	If the standard charge methodology used to establish a payer-specific negotiated charge cannot be described by one of the types of standard charge methodology above, select ‘Other’ and encode a detailed explanation of the contracting arrangement in additional notes.

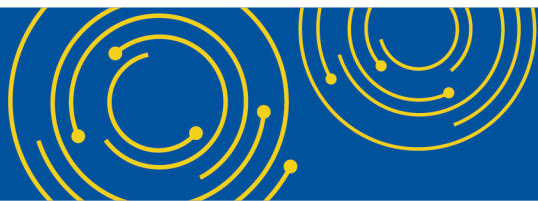


Data Element Overview

As of July 1, 2024, hospitals must adopt a CMS template layout and encode data elements according to the technical specifications described in the data dictionary. The highlighted data elements with asterisks are required to be encoded in the MRF as of **January 1, 2025**.

MRF Information	Standard Charges	Item & Service Information
MRF Date	Gross Charge	General Description
CMS Template Version	Discounted Cash Price	Setting
Affirmation Statement	Payer Name	Drug Unit of Measurement*
	Plan Name	Drug Type of Measurement*
	Standard Charge Method	
	Payer-Specific Negotiated Charge - Dollar Amount	
	Payer-Specific Negotiated Charge - Percentage	
	Payer-Specific Negotiated Charge - Algorithm	
	Estimated Allowed Amount*	
	Additional Generic Notes	
	Additional Payer-Specific Notes	
	De-identified Minimum Negotiated Charge	
	De-identified Maximum Negotiated Charge	
Hospital Information		Coding Information
Hospital Name		Billing/Accounting Code
Hospital Location(s)		Code Type
Hospital Address(es)		Modifiers*
Hospital Licensure Information		

*- New required data elements going into effect January 1, 2025.



Estimated Allowed Amount: how is it defined and when do I need to encode data?

- At 45 CFR § 180.20 we defined “estimated allowed amount” as the average dollar amount that the hospital has historically received from a third-party payer for an item or service.
- This algorithm or percentage is based on the contract the hospital has with a particular payer for a particular plan, and the estimated allowed amount would be the average reimbursement in dollars that it has received from the payer in the past.
- Hospitals are required to encode a dollar value for the “estimated allowed amount” data element, when a payer-specific negotiated charge can only be expressed as an algorithm or percentage. This includes:
 - hybrid scenarios where the standard charge dollar is a base rate and there is an algorithm that accounts for additional individualized charges;
 - where the standard charge is a percent that cannot be calculated as a dollar figure; and
 - where the standard charge is an algorithm



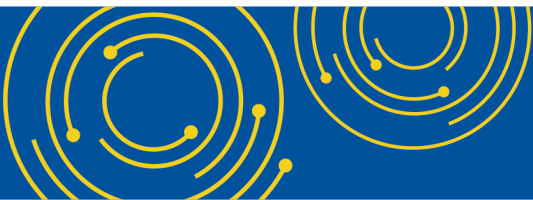
Tip: Check that the estimated allowed amount is calculated at the plan level.

How do I calculate the Estimated Allowed Amount?

- CMS is not prescriptive as to the source of the data.
- We believe hospitals should retain flexibility, in the interest of reducing burden, to determine the best data source for calculating the estimated allowed amount.

Potential Data Source

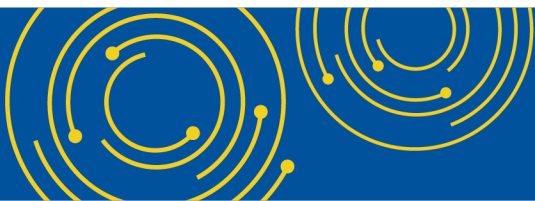
One source hospitals may consider using is information from the EDI 835 electronic remittance advice (ERA) transaction, the electronic transaction that provides claim payment information, including any adjustments made to the claim, such as denials, reductions, or increases in payment, would appear to meet this requirement as the data in the 835 form is used by hospitals to track and analyze their claims and reimbursement patterns.



What if I don't have enough historic claims data to calculate the Estimated Allowed Amount?

CMS recommends that the hospital encode 999999999 (nine 9s) in the data element value to indicate that there is not sufficient historic claims history to derive the estimated allowed amount, and then update the file when sufficient history is available.

- As a guide for the threshold for sufficient history, we suggest hospitals use [the CMS Cell Suppression Policy](#) established in January 2020.
- Additionally, if the hospital wishes to provide further context for the lack of data they can do so in the appropriate additional notes field.



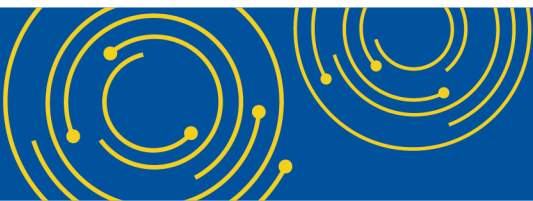
Drug Unit of Measurement

- If a standard charge has been established for a drug, hospital are required to indicate the drug unit and type of measurement as separate data elements.
- If the hospital has established a standard charge for a drug, the hospital would be required to encode the file with a description of the drug, including the applicable drug unit and type of measurement as a separate and distinct data element from the description.
- Hospitals should indicate the unit value that corresponds to the established standard charge.
- If a value is encoded in the drug_unit_of_measurement, a value must also be encoded in the drug_type_of_measurement. Conversely, if a value is encoded in the drug_type_of_measurement, a value must be encoded in the drug_unit_of_measurement.



VIEW EXAMPLES

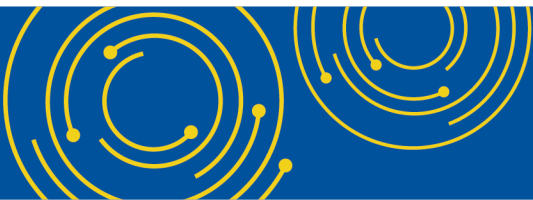
<https://github.com/CMSgov/hospital-price-transparency/tree/master/examples>



Drug Type of Measurement

- The measurement type that corresponds to the established standard charge for drugs as defined by either the National Drug Code or the National Council for Prescription Drug Programs.
- The following valid values for Drug Type of Measurement are based on two sets of industry standards; National Drug Code and National Council for Prescription Drug Programs:

<i>Standard Name</i>	<i>Valid Value</i>
Grams	GR
Milligrams	ME
Milliliters	ML
Unit	UN
International Unit	F2
Each	EA
Gram	GM



Modifiers

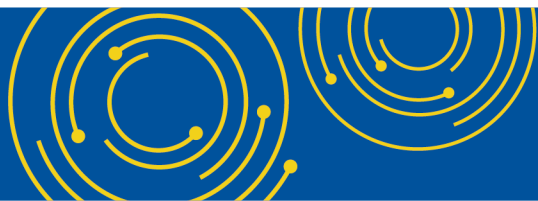
- Include any modifier(s) that may change the standard charge that corresponds to a hospital item or service, including a description of the modifier and how it changes the standard charge.
- CMS allows hospitals flexibility in their approach, and has provided an example of one approach on the HPT Data Dictionary GitHub Repository:

description	modifiers	setting	standard_charge Platform_Health PPO negotiated_percentage	additional_payer_notes Platform_Health PPO
Bilateral procedure	50	both	150	150% payment adjustment for the item or service to which the modifier is appended
Co-surgeon	62	both	62.5	62.5% of the amount for the item or service to which this modifier is appended for each co-surgeon
Bilateral procedure with co-surgeon	50 62	both	93.75	93.75% of the amount for the item or service to which this combination of modifiers is appended for each co-surgeon

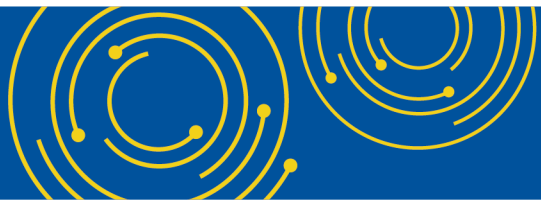


VIEW EXAMPLES

<https://github.com/CMSgov/hospital-price-transparency/tree/master/examples>

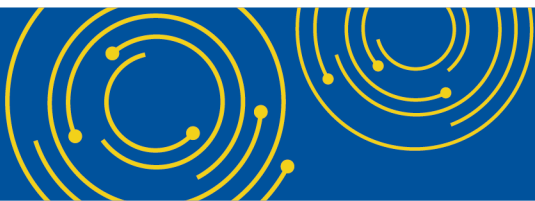
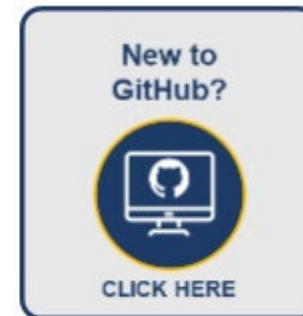


Tips for Implementation



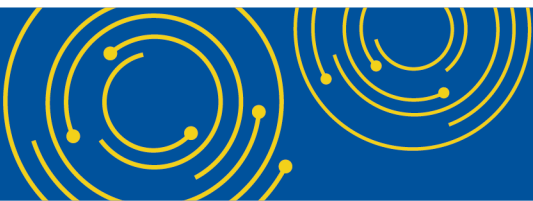
MRF Tip: Select a required template layout from the CMS Hospital Price Transparency GitHub repository

- The CMS template layouts and corresponding data dictionary are located on the CMS Hospital Price Transparency GitHub repository. This repository houses the required CMS templates, in a CSV “tall”, CSV “wide” and JSON format, and provides the data dictionary, or technical instruction, on how hospitals must encode standard charge information into MRFs.
- Select one of the three (CSV wide, CSV Tall or JSON) required template layouts. We recommend you directly download and use a CSV template from the GitHub repository because it is pre-populated with information which can help you avoid some encoding errors.



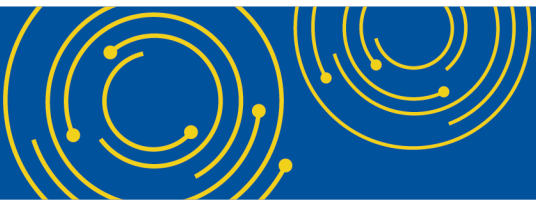
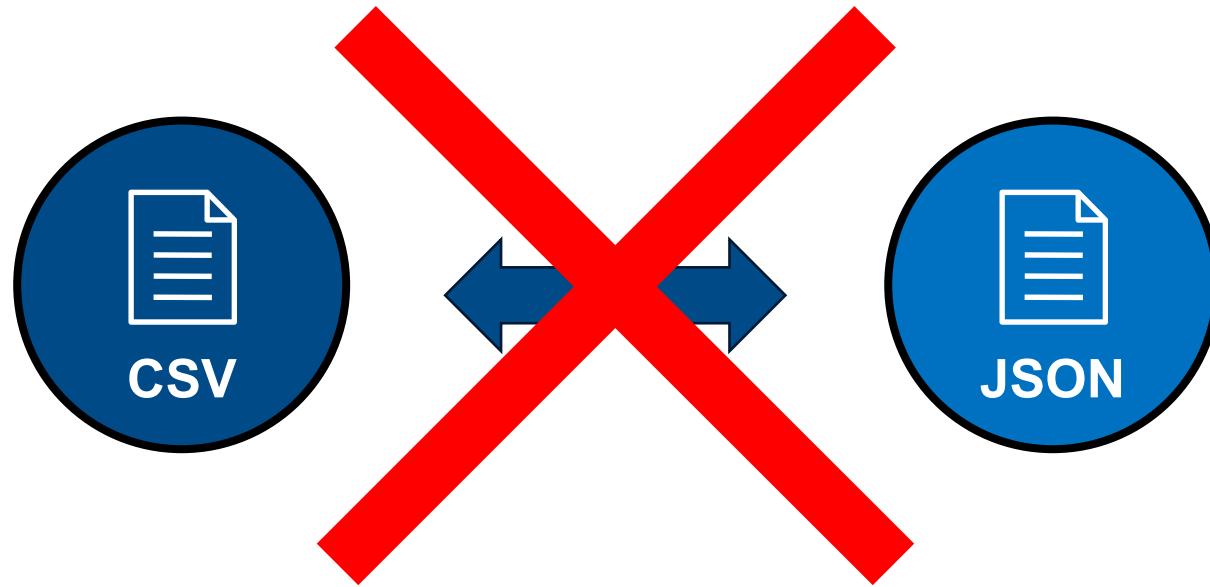
MRF Tip: Follow the requirements in the data dictionary

- The CMS template layouts and corresponding data dictionary provide instruction on what to do if you have no applicable data to encode under a specific data element.
- CMS no longer suggests hospitals enter an indicator like "N/A" or 0 when using a CSV format. You can use the appropriate additional notes field to provide an explanation why there is no applicable data to encode.
- If you have no data to encode under a specific CSV data element, do not remove that data element header from the template. Removing data element headers will generate a deficiency.
- Note: Changing the order of the CSV headers or JSON attributes in the CMS template layouts will not generate a deficiency.
- Hospitals are permitted to include additional optional information through optional data elements that are defined in the data dictionary (e.g., billing class and hospital financial aid policy) or hospital created data elements.
 - Instructions have been added to support standardization of disclosure of 'financial_aid_policy,' 'general_contract_provisions,' and 'billing_class.'



MRF Tip: Don't convert your JSON file to CSV or your CSV to XLS!

- Some of the data attributes are unique to a specific format, so converting the required JSON schema to a CSV or a CSV to JSON file will not meet the requirements.
- Excel is not a valid format.



MRF Tip: Review the version data element

Use the numeric version number of the CMS template rather than the format.

Incorrect encoding of the 'version' data element

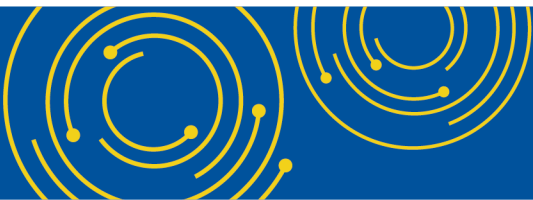


hospital_name	last_updated_on	version	hospital_location	hospital_address	license_number CA
West Mercy Hospital	2024-07-01	CSV Tall	West Mercy Hospital West Mercy Surgical Center	12 Main Street, Fullerton, CA 92832 23 Ocean Ave, San Jose, CA 94088	50056

Corrected encoding of 'version' data element



hospital_name	last_updated_on	version	hospital_location	hospital_address	license_number CA
West Mercy Hospital	2024-07-01	2.0.0	West Mercy Hospital West Mercy Surgical Center	12 Main Street, Fullerton, CA 92832 23 Ocean Ave, San Jose, CA 94088	50056



MRF Tip: Review the license number data element

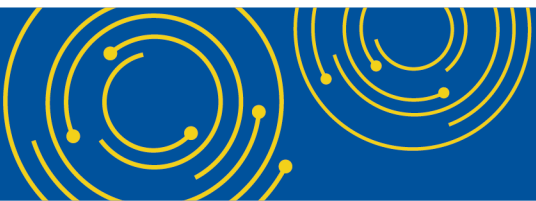
- Hospitals should populate the license number field in the MRF if they have a license number.
- CSV format tip: Replace [state] with your state abbreviation in the license_number | [state] data element.

Incorrect encoding of the 'license number' data element

hospital_name	last_updated_on	version	hospital_location	hospital_address	50056 [state]
West Mercy Hospital	2024-07-01	2.0.0	West Mercy Hospital West Mercy Surgical Center	12 Main Street, Fullerton, CA 92832 23 Ocean Ave, San Jose, CA 94088	California

Corrected encoding of 'license number' data element

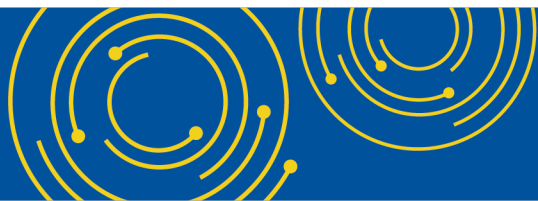
hospital_name	last_updated_on	version	hospital_location	hospital_address	license_number CA
West Mercy Hospital	2024-07-01	2.0.0	West Mercy Hospital West Mercy Surgical Center	12 Main Street, Fullerton, CA 92832 23 Ocean Ave, San Jose, CA 94088	50056



MRF Tip: Review common issues with general data elements

- Encode the hospital name, license number, and location name(s) and address(es) under the single hospital license to which the list of standard charges applies.
 - Location name(s) and address(es) must include, at minimum, all inpatient facilities and stand-alone emergency departments.
- Use the location field for the hospital name, and the address field for the complete hospital address, including street, city, state, and zip code.

hospital_name	last_updated_on	version	hospital_location	hospital_address	license_number CA
West Mercy Hospital	2024-07-01	2.0.0	West Mercy Hospital West Mercy Surgical Center	12 Main Street, Fullerton, CA 92832 23 Ocean Ave, San Jose, CA 94088	50056

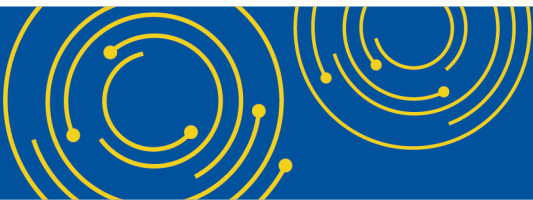


MRF Tip: Review the affirmation statement

- Ensure the affirmation statement is written exactly as stated in the data dictionary.
- Follow the valid values in the data dictionary.
- CSV format tip: Make sure the affirmation statement appears in a single cell.

hospital_name	last_updated_on	version	hospital_location	hospital_address	license_number CA	To the best of its knowledge and belief, the hospital has included all applicable standard charge information in accordance with the requirements of 45 CFR 180.50, and the information encoded is true, accurate, and complete as of the date indicated.
West Mercy Hospital	2024-07-01	2.0.0	West Mercy Hospital West Mercy Surgical Center	12 Main Street, Fullerton, CA 92832 23 Ocean Ave, San Jose, CA 94088	50056	TRUE

A valid value of “TRUE” is necessary to meet the affirmation statement requirements 45 CFR 180.50(a)(3)(ii).



MRF Tip: Use the validator

- In addition to providing the data dictionaries and templates, to further aid hospitals we have developed an MRF validation tool which can be used by your hospital as an initial check for compliance with the formatting requirements of § 180.50(c).

Hospital Price Transparency Tools

Upload file

Files must be in a required CMS template format (.json or .csv)

Drag file here or [choose from folder](#)

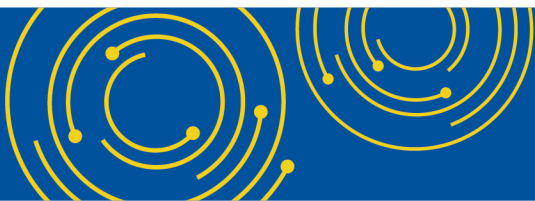
Validation results

Errors

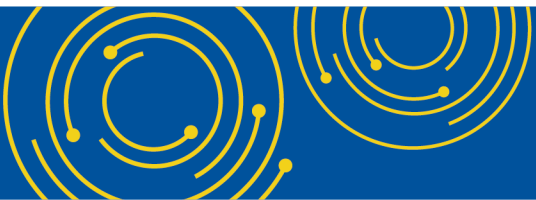
✓ No errors found in file: V2.0.0_Wide_CSV_Format_Example(2).csv

Warnings

✓ No warnings found in file: V2.0.0_Wide_CSV_Format_Example(2).csv

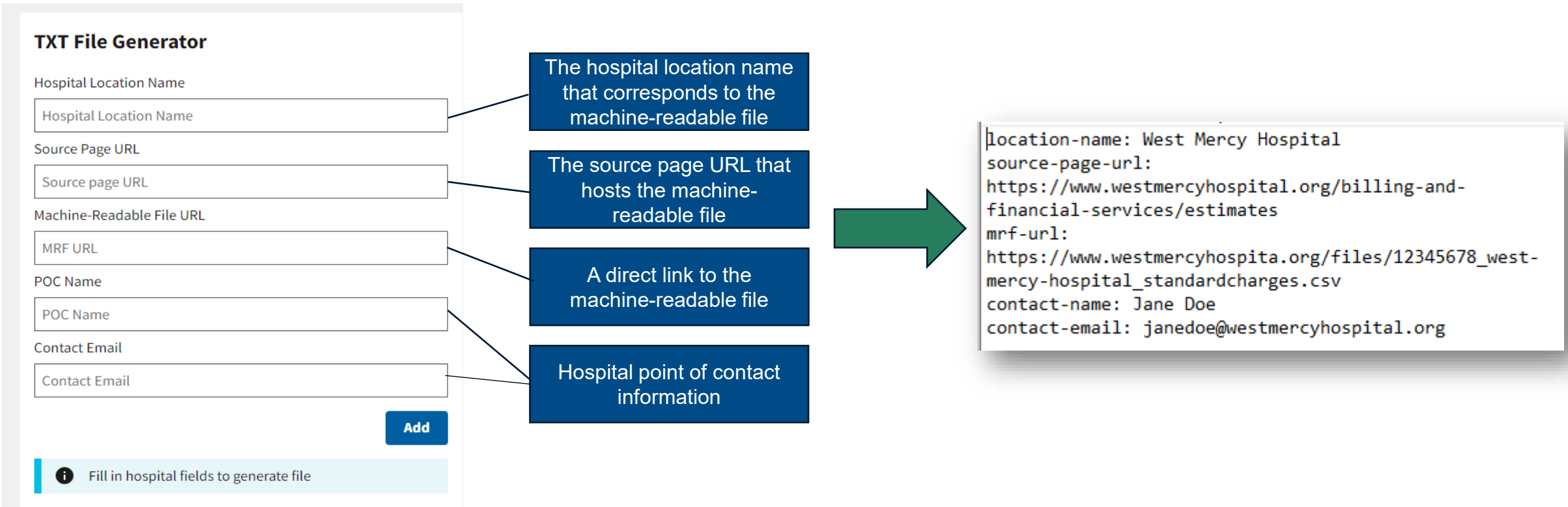


Accessibility Requirement Tips



Accessibility Tip: Use the TXT generator to build your TXT file

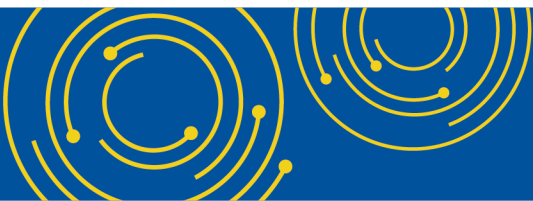
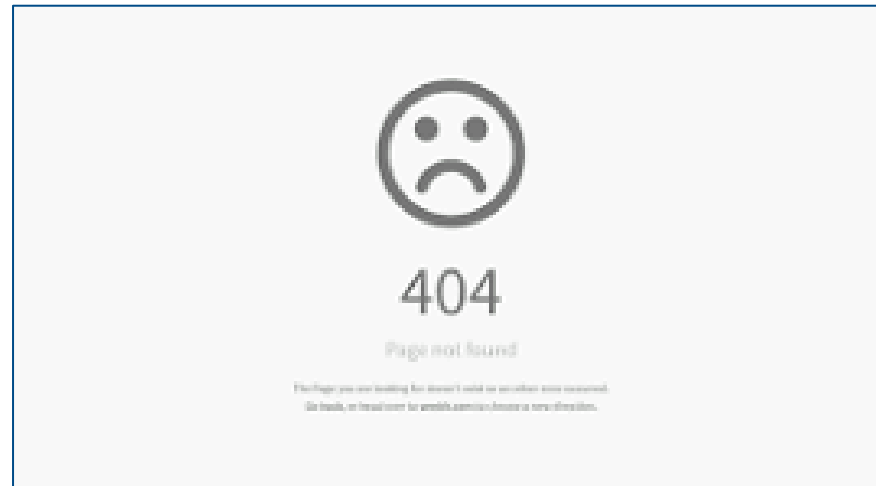
- Effective January 1, 2024, you must ensure that the public website your hospital selects to host its machine-readable file establishes and maintains, in the form and manner specified by CMS a .txt file in the root folder.



Accessibility Tip: Update the TXT

Beware of broken links in your TXT!

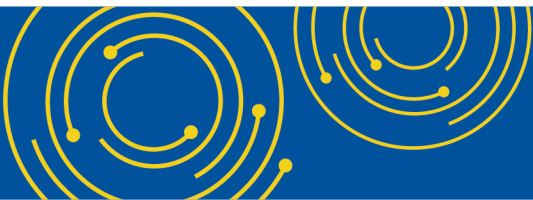
- Remember to update the TXT file when the source page URL or the MRF-URL is updated.
- We suggest, to mitigate confusion, hospitals remove previous links to MRFs.



Accessibility Tip: "Price Transparency" in the footer of your website

Effective January 1, 2024, you must ensure that the public website your hospital selects to host its machine-readable file establishes and maintains, in the form and manner specified by CMS a link in the footer on your website, including but not limited to the homepage, that is labeled "Price Transparency" and links directly to the publicly available web page that hosts the link to the machine-readable file.

- "Pricing Transparency," "Patient Estimates," or "Standard Charges" do not meet the requirement.
- Each time you update your website, we recommend you check that the link is up to date and points to where your MRF is hosted.
- The footer link should go directly to the page from which the MRF is downloaded.



Hospital Price Transparency Resources



Visit the [CMS Hospital Price Transparency – Data Dictionary GitHub Repository](#) to access the CMS templates, technical specifications, and get technical support.

Visit the [HPT Website Resources Page](#) for more information, including a recording of this presentation.

For additional information, please contact:
PriceTransparencyHospitalCharges@cms.hhs.gov

Questions & Answers

