# Automated Documentation in MR


For MEDRAD® MRXperion Injection Systems

# Automated Documentation

By effortlessly capturing contrast and injection parameters along your workflow, Automated Documentation reduces the number of manual tasks and potential errors. It makes the right information available when needed, while complying with documentation requirements.

# Automated Documentation offers greater peace of mind, so you can spend more time focusing on patient care.

## Accurate

Scan barcode data quickly at the source to eliminate contrast transcription errors and to give you peace of mind

## Automated

Automatically propagate data to connected systems for fewer administrative steps and more time for patient care

## Accessible

Have contrast and injection details available effortlessly in the imaging workflow for less time on the phone and more focus on results.

# Automated Documentation in your MR Workflow

## 1. PREPARE

### Barcode Reader

Scan the bottle's barcode and all contrast information, such as brand, concentration, lot**, expiry date** and vial volume, is documented and displayed.

## 2. PLAN

### Modality Worklist

Patient demographics and study information are retrieved from the modality worklist and presented on one screen – including patient ID, name, gender, height, and more.

## Benefits

- Accurately captures data at the source
- Helps meet documentation requirements
- Accessible for reporting and billing
- Less administrative steps and more time for patient focus.

## Benefits

- Quick selection to match the procedure to the correct patient.

** Only with Bayer 2D barcode contrast agents.

## 3. PERFORM

### PACS Interface

The workstation combines contrast, patient and injection information into a secondary capture file, which is automatically sent to PACS.

## 4. REPORT

### Speech Interface (optional)

Speech recognition interface can be configured to auto-populate contrast and injection details in the report, which are also visible in PACS as secondary capture.

## Benefits

- Helps save time from manual data entry
- Contrast and injection details become part of the patient's PACS file
- The information is accessible for reporting and quality management.

## Benefits

- Saves time dictating and reviewing contrast details
- Allows the correlation of injection parameters with enhancement levels in the images
- Information in the report may assist with protocol optimisation.

## 5. BILL

### RIS Interface (optional)

Injection contrast details can be conveniently and automatically sent to the relevant RIS.

## 6. MANAGE

### Radimetrics Enterprise Platform (optional)

Contrast and injection information from multiple procedures can be compiled and used for statistical analysis, which can optionally be sent to a Radimetrics™ Enterprise Platform.

## Benefits

- Accurate invoicing of contrast-enhanced procedures can be streamlined if a billing system is connected to the RIS.

## Benefits

- Helps identify abnormal injections that were aborted or repeated for future corrections
- Allows for root-cause analysis to reveal possible reasons for abnormal injections
- Helps identify measures to enhance reproducible image results and timely completion of exams.

# Benefits

## Clinical

- Capture gadolinium dose in the patient record for patient management
- View injection parameters to correlate with enhancement levels for protocol optimisation or follow-up.

## Organisational

- Access contrast information when and where you need it
- Achieve standardised information flow and record keeping.

## Financial

- Comply efficiently with contrast documentation requirements
- Streamline correct invoicing of contrast usage where applicable.

## PREPARE

**Contrast information captured***

- Brand
- Concentration
- Vial Volume
- Lot Number**
- Expiry Date**

## PLAN

**Patient information captured**

- Patient ID
- Patient name
- Date of birth
- Gender
- Height
- Accession number
- Study description
- Study unique ID

## PERFORM

**Injection parameters captured**

- Peak pressure and flow rate
- Pressure limit
- Total fluid and total Gd
- Volume loaded
- Volume used and remaining
- Delay
- Start and end times
- Injector model

## MANAGE

**Parameters**

- Injection count
- Repeat injections
- IV issue count
- Lost time
- Atypical injections
- Injection template deviations
- Cumulative patient dose

* Pre-configured for Bayer contrast agents with 2D barcode.

** Only with Bayer 2D barcode contrast agents.

# Software and Interfaces

## Ordering Information

**Informatics Starter Package:**
Barcode Reader* and Modality Worklist Access
(Catalogue Number: MRXP AUTO DOC)

**PACS Outbound Interface:**
Send Secondary Capture
of Contrast Injection to PACS
Catalogue Number: MIS PCS 105)

Optional

**RIS Outbound Interface:**
Send Contrast Injection
Information to RIS
(Catalogue Number: MIS PCS 301)

Optional

**Speech Recognition Outbound Interface:**
Send Contrast Injection Information to
Nuance Speech Recognition System
(Catalogue Number: MIS PCS 300)

PBS Information: This product is not listed on the PBS.

**GADOVIST® 1.0 [gadobutrol 1.0 mmol/mL]**

**INDICATIONS:** Adults and children including full-term newborns for contrast enhancement in cranial and spinal magnetic resonance imaging (MRI); contrast enhancement in whole body MRI including head and neck region, thoracic space, breast, abdomen (pancreas, liver and spleen), pelvis (prostate, bladder and uterus), retroperitoneal space (kidney), extremities and musculoskeletal system; first–pass MRI studies of cerebral perfusion; contrast enhancement in magnetic resonance angiography (CE MRA); contrast enhancement in cardiac MRI including assessment of rest and pharmacological stress perfusion and delayed enhancement. **CONTRAINDICATIONS:** known hypersensitivity to gadobutrol or any of the ingredients. **PRECAUTIONS:** Severe renal impairment and liver transplant patients (see boxed warning); pronounced states of excitement, anxiety and pain may increase the risk or intensity of adverse reactions; anaphylactoid/hypersensitivity or other idiosyncratic reactions (higher risk in the case of previous reaction to contrast media, history of bronchial asthma, history of allergic disorders); severe cardiovascular disease; patients with a low threshold for seizures; limited MRI studies of cerebral perfusion; evidence suggests gadolinium accumulates in the brain after repeated administration of gadolinium-based contrast agents; limited safety and efficacy data in infants under 2 years of age; sequential and/or repeat procedures in children have not been studied; no studies in paediatric patients with renal dysfunction, premature infants and patients younger than 6 days old; the potential risk for neurotoxicity and nephrotoxicity in newborns term infants ≤ 3 days of age is unknown; pregnancy (Category B3). **INTERACTIONS:** No studies conducted. **ADVERSE EFFECTS:** most common: headache; nausea; dizziness. Refer to full PI. **BOXED WARNING:** NEPHROGENIC SYSTEMIC FIBROSIS: Gadolinium-based contrast agents increase the risk of nephrogenic systemic fibrosis (NSF) in patients with: acute or chronic severe renal insufficiency (glomerular filtration rate <30 mL/min/1.73m$^2$; or acute renal insufficiency of any severity due to the hepato-renal syndrome or in the perioperative liver transplantation period. **DOSAGE AND ADMINISTRATION:** IV admin only as a bolus. Use lowest effective dose. Cranial and spinal MRI: 0.1 mL/kg body weight i.v. at a rate of 2 mL/second. Max total amount of 0.3 mL/kg body weight. CE MRI of the whole body: 0.1 mL/kg body weight. Cerebral perfusion studies: for gradient echo sequences 0.1 - 0.3 mL/kg body weight i.v. at a rate of 5 mL/second using a powered injector. CE MRA: One field of view: < 75 kg body weight: 7.5 mL, ≥ 75 kg body weight: 10 mL; More than one field of view: < 75 kg body weight: 15 mL, ≥ 75 kg body weight: 20 mL. CE Myocardial perfusion imaging and delayed enhancement: 0.05 mL/kg body weight during pharmacological stress and 0.05 mL/kg body weight at rest; for delayed enhancement only, a total dose of 0.1 mL/kg body weight. Children of all ages including full-term newborns: 0.1 mL/kg body weight for all indications. Do not exceed the recommended dose in newborns and infants up to 1 year of age. The interval for repeated administration between injections is at least 7 days. Renal impairment: Do not exceed the recommended dose. **DATE OF PREPARATION:** Based on PI dated 12-Feb-2020.

Please review the full Product Information before prescribing. Approved PI available at https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2012-PI-01911-3&d=201909241016933 or upon request from Bayer Australia Ltd, ABN 22 000 138 714, 875 Pacific Highway, Pymble NSW 2073, phone 1800 008 757.

PBS Information: This product is not listed on the PBS.

**PRIMOVIST® [disodium gadoxetate 0.25 mmol/mL]**
**INDICATIONS:** Enhancement of magnetic resonance imaging (MRI) of focal liver lesions in adults. **CONTRAINDICATIONS:** known hypersensitivity to disodium gadoxetate or any of the excipients. **PRECAUTIONS:** Impaired renal function and liver transplant patients (see boxed warnings); impaired hepatic function; anaphylactoid/hypersensitivity or other idiosyncratic reactions (higher risk in the case of previous reaction to contrast media, history of bronchial asthma, history of allergic disorders); intramuscular administration; severe cardiovascular disease; risk factors for arrhythmias associated with QT prolongation; evidence suggests gadolinium accumulates in the brain after repeated administration of gadolinium-based contrast agents; not recommended in children < 18 yrs of age; pregnancy (Category B3). INTERACTIONS: rifampicin; interference with diagnostic tests (serum iron). **ADVERSE EFFECTS:** most common: headache; nausea. Refer to full PI. **BOXED WARNING:** NEPHROGENIC SYSTEMIC FIBROSIS: Gadolinium-based contrast agents increase the risk of nephrogenic systemic fibrosis (NSF) in patients with: acute or chronic severe renal insufficiency (glomerular filtration rate <30 mL/min/1.73m$^2$; or acute renal insufficiency of any severity due to the hepato-renal syndrome or in the perioperative liver transplantation period. **DOSAGE AND ADMINISTRATION:** IV admin only as a bolus. Use lowest effective dose. 0.1 mL/kg body weight given as an i.v. injection at a flow rate of about 2 mL/sec. **DATE OF PREPARATION:** Based on PI dated 19 February 2020.

Please review the full Product Information before prescribing. Approved PI available at https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2009-PI-01225-3&d=201909251016933 or upon request from Bayer Australia Ltd, ABN 22 000 138 714, 875 Pacific Highway, Pymble NSW 2073, phone 1800 008 757.

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