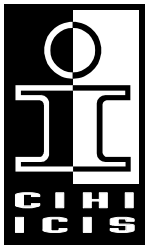

Canadian Institute
for Health Information

Institut canadien
d'information sur la santé

Discharge Abstract Database
Data Quality Study

Preliminary Year 1 Findings

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Introduction

This document provides an overview of the background and specific objectives of a special study being undertaken by the Canadian Institute for Health Information (CIHI), focusing on the accuracy of the data found in the Discharge Abstract Database (DAD). It also presents a summary of the preliminary findings from the first year (fiscal 1999/00 data) of the three-year study and discusses some of the activities that will be carried out over the next two years. A comprehensive report based on the analysis of the combined data from the first two years of the study will be produced at the completion of the second year of the study.

Background

Discharge Abstract Database (DAD)

The Discharge Abstract Database (DAD) contains demographic, administrative and clinical data for about 85% of all hospital inpatient (acute, chronic, rehabilitation) discharges in Canada, as well as over two million day-surgery cases per year.

DAD data are used by a variety of stakeholder groups including health service providers, policy/decision makers, governments (federal, provincial/territorial, regional and local), researchers, etc. The data are used extensively to monitor utilization of acute care health services, conduct analyses of health conditions and injuries, and support the development of value-added outputs such as grouping methodologies and related resource consumption indicators. The DAD is also being used increasingly to track patient outcomes and is a major source of data used to produce various CIHI reports and publications, including its annual report on the performance of the health care system.

Data Quality Study

An ongoing challenge for any organization producing statistical information is to ensure that the quality of the information it produces is suited for its intended uses, and that data users are provided with good information about data quality. To this end, CIHI has established a comprehensive and systematic data quality program that includes implementation and ongoing monitoring of a corporate data quality framework, as well as conducting special studies that focus on specific data quality issues.

Given the size, coverage and importance of the Discharge Abstract Database, CIHI recently undertook to conduct a special study, designed to evaluate the accuracy of the DAD data. The DAD Data Quality Study is the first national study that uses a statistical sampling methodology to reliably measure the accuracy of selected non-medical and clinical administrative data contained in the DAD.

DAD Data Quality Study

Goal and Objectives of Study

The goal of the DAD Data Quality Study is to evaluate the accuracy of selected administrative data, at the national level, contained in CIHI's Discharge Abstract Database. Specific objectives of the study, over a three-year period, include:

1. To evaluate and measure the overall accuracy of the DAD;
2. To evaluate and measure the impact of data collection from incomplete charts;
3. To evaluate and measure the coding quality of diagnoses and procedures relevant to specific health indicators (included in CIHI's Health Indicators Framework);
4. To evaluate and measure the extent to which diagnoses and procedures are not coded according to CIHI guidelines (and identify where additional coding guidelines may be required);
5. To assess whether any of the of the above evaluations have an impact on the assignment of Case Mix Group (CMG) and Length of Stay (LOS); and
6. To facilitate the evaluation of the change to new diagnosis and intervention classification standards (i.e. ICD-10-CA/ CCI).

Scope of Study

The DAD Data Quality Study is a large scale, multi-year, study that is designed to assess the accuracy of the data contained in the DAD by returning to the original source of the information (i.e. patient charts) and comparing this information with what exists in the CIHI database. The intent of the study is to assess the accuracy of the DAD data at the national level as opposed to the facility level.

The first year of the DAD Data Quality Study specifically focused on the following health indicators selected from the CIHI Health Indicator Framework:

- Ambulatory Care Sensitive Conditions
- Cesarean Sections
- Coronary Artery Bypass Graft
- Hospitalization due to Pneumonia and Influenza
- Injury Hospitalizations
- Total Hip Replacement
- Vaginal Births After Cesarean Sections

The first year of the study also provided an opportunity for collaboration with the Canadian Perinatal Surveillance System (CPSS) of the Bureau of Reproductive and Child Health which is part of Health Canada's Centre for Healthy Human Development[1] (HHD). The CPSS is part of Health Canada's initiative to strengthen Canada's health surveillance capacity and its long-term goal is to create a national database that provides the data elements required to monitor a comprehensive set of perinatal indicators.

[1] The centre was previously known as the Laboratory Centre for Disease Control (LCDC).

The following indicators, developed and defined by the Canadian Perinatal Surveillance System, were therefore included as part of the first year of the DAD Study:

- Rare Congenital Anomalies
- Rare Maternal Conditions
- Rare Neonatal Conditions
- Respiratory Distress Syndrome
- Third Degree Perineal Laceration
- Other Non-rare Maternal & Neonatal Conditions

Details of the specific conditions and procedures included in each indicator can be found in Appendix A, Health and CPSS Indicators.

Study Methodology

Sampling Methodology

Eighteen facilities[2] participated in the study, allowing for the re-abstraction of 2,737 charts. The study features a multi-stage stratified sample design. The first stage involved the random selection of facilities stratified by geography, size and type of hospital. In the second sampling stage, randomly selected charts were stratified by both Health and CPSS indicators (conditions or procedures). The facility response rate for participation in the study was greater than expected at 85%. The sampling weight was used to estimate the percentage of discrepancies for all data elements in the study. These estimates are subject to sampling and non-sampling error. Since errors may occur at every phase of a study, considerable time and effort was spent to minimize non-sampling errors by implementing quality assurance procedures throughout the study.

Data Collection (Re-abstraction of Charts)

CIHI classification specialists[3] re-abstracted the data for the study by returning to the original source of the data on site at each facility for a one-week period during September to November 2000. The specific data elements that were re-abstracted are listed in Appendix B. The re-abstracted information was then compared with the information contained in the original submission to the DAD.

Privacy, Confidentiality and Security

In order to respect personal privacy and to safeguard the confidentiality of individual records and facilities, a number of procedures were developed and adhered to throughout the study. CIHI classification specialists signed confidentiality agreements with the participating hospitals and CIHI agreed not to release the names of the participating facilities. All results, other than the reports provided to the participating facilities, are

[2] The target population included all acute care facilities submitting data to the DAD. Facilities from from Quebec and Manitoba were excluded from the study because they do not submit to the DAD. Submitting facilities from the 3 territories were excluded for travel/cost reasons.

[3] CIHI *Classification Specialists* are certified with the Canadian College of Health Record Administrators; are responsible for developing, interpreting and teaching classification systems; are well experienced in various hospital settings; and have expert knowledge of medical terminology and diagnosis and procedure classification standards.

discussed in an aggregate form only, so that it is not possible to identify individual patients, physicians or institutions included in the study.

Identification of Discrepancies and Reasons

All clinical information such as diagnoses and procedures were re-abstracted blindly (i.e. without viewing the original abstracted data). Objective non-medical information (such as date of admission, date of discharge, etc.) was viewed and compared to the original data, then a match or a discrepancy was identified. If a discrepancy occurred, the non-medical data were re-abstracted.

For each discrepancy, both medical and non-medical, the type of discrepancy and a possible reason were assigned by the re-abstractor. More than one reason could be assigned per discrepancy. A complete list of discrepancy types and reason codes can be found in Appendix C, Discrepancy Codes, and Appendix D, Discrepancy Reason Codes, respectively. An example is found in Table 1 below.

Table 1: Example

The physician helping a woman to deliver a baby uses low forceps with an episiotomy. In the original DAD submission the code used is for low forceps only, without mention of the episiotomy. The re-abstractor assigns the code for low forceps delivery with episiotomy.		
	Original abstract	**Re-abstract**
Principal procedure code	84.0 Low forceps delivery (without episiotomy)	84.1 Low forceps delivery with episiotomy
A discrepancy is identified such that the original DAD submission had an error that was the result of missing information when the chart was coded: • Discrepancy 21 – Procedure code different • Reason code P – Information on chart missed		

In some cases the reason for the discrepancy between the original data and the re-abstracted data may be due to the unavailability of data; coding of the data element may have been optional or for other reasons beyond the control of the re-abstractor. In other situations, the reason for the discrepancy may be thought to be of a less critical nature, but was captured because of its potential benefit in coding guideline development.

Preliminary National Findings

Health Indicators[4]

Indicators related to elective procedures such as coronary artery bypass grafts or hip replacements, and those where the treatment is not as complex as in cesarean sections and vaginal births after cesarean section, were the most accurately coded. Diagnoses with more complex treatment protocols and those that are less easily defined such as pneumonia, injuries and ambulatory care conditions showed a higher degree of discrepancies.

[4] CPSS indicators are currently being analysed by the CPSS team.

Four health indicators had fewer than 5% discrepancies: cesarean section; coronary artery bypass graft; vaginal birth after cesarean; and total hip replacement. The following health indicators had greater than 5% discrepancies: ambulatory care sensitive conditions (10.9%); hospitalization due to pneumonia (7.1%); and injury hospitalization (5.5%).

Demographic and Non-Medical Discrepancies and Reasons

The two data elements where discrepancies were identified over 10% of the time were *Admission Category* (13.9%) and *Wait Time in Emergency* (10.6%). *Discharge Hour* (9.8%), *Postal Code* (9.0%), and *Entry Code* (6.5%) had the next most frequent discrepancies.

Many of the *Admission Category* numbers arose from situations where patients were admitted to hospital through the Emergency department. In some cases hospitals were simply identifying all of these patients as "*Emergent*" when, in fact, only patients with life-threatening conditions should be designated as such. In addition, there was still some difficulty in identifying proper admission codes for obstetrical patients.

The results for *Wait Time in Emergency*, while not a mandatory element in all provinces, indicate that hospitals are having difficulty with both the documentation and collection of this information.

The discrepancies in the *Discharge Hour* were commonly found to be the result of discharge times being electronically downloaded into the abstract, which did not match the time that the patient actually left the floor indicated by the nursing notes in the chart. 27.6% of non-medical discrepancies could be explained, at least in part, to coders missing information that was available on the chart, while another 21.8% occurred because of incorrect data downloads.

Diagnosis Code/Typing Discrepancies and Reasons

The diagnosis codes in this study were compared using four different elements: the prefix, the actual code, the suffix, and the diagnosis type. The following diagnosis discrepancies were identified in the study: Most Responsible Diagnosis (MRDx) 13.4%, Comorbidity and Complication (CC) typing 11.0%, other diagnosis discrepancies 31.2%, and discrepancies associated with the code itself 6.5% (regardless of whether MRDx or CC).

Almost half of the MRDx discrepancies occurred when the re-abstractor coded a diagnosis as the MRDx when it had been coded as another diagnosis type in the original abstract.

For the other categories, the majority of the discrepancies fell into one of three areas:

- the original coder captured a code that the re-abstractor did not feel was significant;
- the re-abstractor coded a significant condition that the original coder did not; and
- the re-abstractor and original coder used a different code to represent the same condition.

The predominant reasons for these discrepancies included:

- the re-abstractor disagreeing that the diagnosis significantly impacted on the treatment and/or length of stay;
- the original coder missing information that was documented on the chart; and
- different interpretations of the documentation.

Procedure Code Discrepancies and Reasons

Discrepancies related to procedures were divided into categories. The following discrepancies were identified: Principal Procedure (PP) 10.0%, other procedures 23.3%, differences in the procedure code itself 5.3%, and anaesthetic types 13.9%.

The most common procedure discrepancies were:

- the original coder captured a procedure that the re-abstractor did not;
- the re-abstractor coded a procedure that the original coder did not; and
- the re-abstractor and original coder used a different code to represent the same procedure.

The most prevalent reasons for procedure discrepancies were the original coder missing information that was documented on the chart and different interpretation of the documentation. For anaesthetic technique, information missed was again most common, but additionally, coding contrary to guidelines was also a common reason.

Next Steps

One of the major objectives of the study is to support the development and enhancement of coding guidelines, as Canada moves into the implementation of ICD-10-CA/CCI. Results from the first year of the study relating to diagnosis and procedure discrepancies have been summarized and are in the process of being extensively reviewed by the CIHI classification team. This analysis will feed directly into the ongoing coding guideline development process and into the education sessions provided by CIHI. This will help to ensure that coding issues of national significance will receive appropriate consideration as the guidelines are developed.

The findings may be used to identify other improvements for both non-medical and clinical data. For example, coders missing information that was available on the chart (reason P) accounted for a substantial number of discrepancies for all types of data (both non-medical and clinical). The source for this discrepancy may involve two processes:

1. The abstract may have been coded from charts with incomplete documentation at the time of the submission of the abstract to CIHI. It was noted in an earlier investigation done by CIHI into the timeliness of the DAD that 30% of large hospitals were submitting such abstracts.
2. The abstract was coded from a complete chart and the original coder missed the information.

For the second year of the study (fiscal 2000/01 data), the classification specialists are using the comments field to record the part of the chart that the re-abstracted data was found (for example: face sheet, discharge summary, operative report, pathology report, physicians' orders, progress notes, consults, diagnostic investigations, nurses notes, other).

Further follow-up and collaborative efforts involving the hospitals and/or system vendors may be considered to address specific quality issues. For example, these collaborative efforts could determine the reasons for discrepancies such as incorrect admission/discharge/transfer (ADT) download inconsistent with the rest of the chart.

The knowledge and experience gained from the first year of the study was used to enhance the second year of the study. The sample size was reduced in the second year of the study due to the target sample size being exceeded in the first year of the study. The sample size per facility was reduced to 150 in order to have a reasonable workload for the classification specialists and the number of facilities was reduced to eleven. As a consequence of these two factors, the second year of the study is focussing on only four health indicators: acute myocardial infarction, total knee replacement, hip fracture, and hysterectomy. The second year of the study will also include a sample of charts not assigned to any of these indicators. CPSS indicators are not being included in the second year of the study due to the need for additional analysis of the first year findings currently being initiated by CPSS.

After completion of the second year of the study, a full report based on the first two years of the study will be available. The combined findings from the first and second year will provide a base line of the quality of the DAD as it exists before the change to the new diagnosis and intervention standards (ICD-10-CA and CCI) and the new discharge abstract.

Appendix A— Health and CPSS Indicators

Appendix A—Health and CPSS Indicators

Health Indicator Algorithms

Description	ICD-9 (Dx) or CCP (procedure)	CMG
Ambulatory care sensitive conditions (ACSC). This indicator consists of the following conditions: diabetes, asthma, alcohol or drug psychoses, and non-dependant abuse of drugs, depression, and hypertension.	401-405, 291, 292, 303-305, 311, 300, 250, 493	
Cesarean section	86.0, 86.1, 86.2, 86.8, 86.9	
Coronary artery bypass graft surgery (CABG)	48.1	
Hospitalization due to pneumonia and influenza	480, 481, 482, 483, 484, 485, 486, 487	
Injury hospitalization consisted of the specified E-codes in any diagnosis position:	E800, E801, E802, E803, E804, E805, E806, E807, E810, E811, E812, E813, E814, E815, E816, E817, E818, E819, E820, E821, E822, E823, E824, E825, E826, E827, E828, E829, E830, E831, E832, E833, E834, E835, E836, E837, E838, E840, E841, E842, E843, E844, E845, E846, E847, E848, E880, E881, E882, E883, E884, E885, E886, E887, E888, E890, E891, E892, E893, E894, E895, E896, E897, E898, E899, E900, E901, E902, E906, E907, E908, E909, E910, E913, E914, E915, E916, E917, E918, E919, E920, E921, E922, E923, E924, E925, E926, E927, E928, E953, E954, E955, E956, E957, E958, E960, E961, E963, E964, E965, E966, E967, E968, E970, E971, E972, E973, E974, E975, E976, E978, E983, E984, E985, E986, E987, E988, E990, E991, E992, E993, E994, E995, E996, E997, E998	
Total hip replacement	93.51, 93.59	
Vaginal births after cesarean section (VBAC)	654.2	
Not assigned to any indicator	All other abstracts not assigned to any health or CPSS indicator	

Canadian Perinatal Surveillance System Indicator Algorithms

Description	ICD-9 (Dx) or CCP (procedure)	CMG
Rare Congenital Anomalies		
• Amniotic fluid embolism	673.1	
• Anencephalus and similar anomalies	740.0, 740.1, 740.2	
• Anomalies of abdominal wall	756.7	
• Cerebrovascular disorders	674.0, 430, 431, 432, 433, 434, 435, 436, 437, 438	>600 and <605 or>605 and<612
• Cleft palate	749.0	
• Cleft palate with cleft lip	749.2	
• Congenital hydrocephalus	742.3	
• Down's syndrome	758.0	
• Encephalocele	742.0	
• Hypoplastic left heart syndrome	746.7	
• Limb reduction anomalies	755.2, 755.3, 755.4	
• Spina bifida	741.0, 741.1, 741.2, 741.3, 741.4, 741.5, 741.6, 741.7, 741.8, 741.9	
• Transposition of great vessels	745.1	
Rare Maternal Conditions		
• Eclampsia	642.6	
• Exchange transfusion	13.01	
• Rupture of the uterus	665.0, 665.1	
• Obstetric septic shock	634.5, 635.5, 636.5, 637.5, 638.5, 639.5, 669.1	
• Obstetrical pulmonary embolism	634.6, 635.6, 636.6, 637.6, 638.6, 639.6, 673.0, 673.2, 673.3, 673.8	>600 and <605 or>605 and <612)
• Seizures	779.0	
Rare Neonatal Conditions		
• Anaesthesia complications	668.0, 668.1, 668.2, 668.8, 668.9	
• Brachial plexus injury	767.6	
• Fracture of the clavicle	767.2	
• Haemorrhagic disease of the newborn	776.0	
• Intestinal anorectal atresia and stenosis	751.2	
• Intraventricular haemorrhage	772.1	
• Massive aspiration syndrome	770.1	
• Necrotizing entercolitis	777.5	
• Renal agenesis and dysgensis	753.0	
• Severe birth asphyxia	768.5	
• Tracheo-esophageal fistula, esohageal atresia and stenosis	750.3	
Respiratory distress syndrome	769	
Third degree perineal laceration	664.2	
Other maternal or neonatal conditions	Other maternal or neonatal conditions not including those above	

Appendix B— Re-abstracted Data Elements

Appendix B—Re-abstracted Data Elements

(Based on Fiscal 1999/2000 DAD Data Elements)

Group & Field No.	Data Element
01 11	Second Chart/Register Number
03 01	Health Care Number
03 02	Postal Code
03 04	Gender
03 05	Prov/Terr Issuing HCN
03 08	Birthdate
03 09	Estimated Birthdate
04 01	Admit Date
04 02	Admit Hour
04 04	Institution From
04 05	Admission Category
04 06	Entry Code
04 07	Admit by Ambulance
04 08	Readmission Code
04 09	Unplanned Readmission Code
04 10	Wait Time in Emergency (min.)
05 01	Discharge Date
05 02	Discharge Hour
05 04	Institution To

Group & Field No.	Data Element
06 01	Exit Alive
06 04-11	Death Code
07 03	Weight (0-29 days on admission)
07 04	Abstract Overflow
10 01	Diagnosis Prefix
10 02	Diagnosis Code
10 03	Diagnosis Suffix
10 04	Diagnosis Type
11 01	Procedure Date
11 02	Procedure Code
11 03	Procedure Suffix
11 10	Anaesthetic Technique
11 11	Out of Hospital Institution Number
11 12	Unplanned Return to O.R.
13 01	SCU Death Indicator
13 02	SCU Unit Number
13 03	SCU Days
17 01-07	Blood Information
18 01-05	Therapeutic Abortion Information

Appendix C—Discrepancy Codes

Appendix C—Discrepancy Codes

Non-medical (clinical) Data

1. **Entry missing**. Re-abstractor captured data not in database
2. **Entry not coded by re-abstractor**. Re-abstractor did not capture data that was in database
3. **Entry different**. Re-abstractor captured data that is different than the database

Diagnosis codes

4. **Diagnosis prefix/suffix different**. Either database or re-abstractor has coded prefix/suffix that the other has not.
5. **Different diagnosis code.** Different codes used to identify same condition.
6. **MRDx coded as different type.** Re-abstractor coded as MRDx but coded in database as another diagnosis type.
7. **MRDx missing.** Re-abstractor coded as MRDx but does not appear in database at all.
8. **CC diagnosis coded as type 3.** Re-abstractor coded and typed as 1 or 2 but coded in database as a type 3.
9. **CC diagnosis missing.** Re-abstractor coded and typed as 1 or 2 but does not appear in database at all.
10. **Pre-admit comorbidity typed as post-admit.** Re-abstractor coded and typed as 1 but coded in database as a type 2.
11. **Post-admit comorbidity typed as MRDx.** Re-abstractor coded and typed as 2 but coded in database as MRDx.
12. **Post-admit comorbidity typed as pre-admit.** Re-abstractor coded and typed as 2 but coded in database as a type 1.
13. **Secondary diagnosis coded as the MRDx.** Re-abstractor coded as type 3 but coded in database as MRDx.
14. **Secondary diagnosis typed as CC diagnosis.** Re-abstractor coded as type 3 but coded in database as a type 1 or 2.
15. **Diagnosis not coded, typed as MRDx.** Re-abstractor did not code, but coded in database as MRDx.
16. **Diagnosis not coded, typed as CC diagnosis.** Re-abstractor did not code, but coded in database as a type 1 or 2.
17. **Not used.**
18. **Transfer Dx missing.** Re-abstractor coded transfer Dx, but does not appear in database.
19. **Diagnosis not coded, typed as transfer diagnosis.** Re-abstractor did not code, but coded in database as a transfer diagnosis.
20. **Not used.**

Procedures codes

21. **Procedure code different.** Different codes used to identify same procedure.
22. **Principal procedure coded as "other" procedure.** Re-abstractor coded as principal procedure but appears in database as "other" procedure.
23. **Principal procedure missing.** Re-abstractor coded as principal procedure but does not appear in database at all.
24. **Other procedure missing.** Re-abstractor coded as other procedure but does not appear in database at all.
25. **Procedure not coded, original coded as principal procedure.** Re-abstractor did not code procedure, appears in database as principal procedure.
26. **Procedure not coded, original coded as other.** Re-abstractor did not code procedure, appears in database as other procedure.
27. **Anaesthetic type different.** Re-abstractor did not identify same anaesthetic type as in database.
28. **Anaesthetic type missing.** Re-abstractor identified anaesthetic type that does not appear in the database.
29. **Anaesthetic type not identified appears in database.** Re-abstractor did not identify anaesthetic type that appears in the database.

Appendix D—Discrepancy Reason Codes

Appendix D—Discrepancy Reason Codes

Type A Discrepancies

Reason Code	Reason
A	Transcription error – errors in transcription of numbers and/or letters. Includes abstracting errors.
B	Incomplete documentation available at time of original abstraction – only when clearly identifiable
D	Lack of code specificity. A case where a non-specific or "other/unspecified" codes was used when a more specific code is supported by the chart documentation.
E	Code specificity not supported by record. Cases where a very specific code is used which is not supported by chart documentation.
F	Different interpretation of documentation. Cases where error in interpretation of documentation in original abstract has resulted in incorrect code.
I	Diagnosis coded did not have significant impact on treatment and/or LOS. Cases where code is typed as significant (1 or 2) and re-abstractor does not agree the documented treatment warranted it.
K	Other grey area coding. Other cases where different interpretation of the documentation and guidelines may lead to discrepancies.
L	Inconsistent or conflicting documentation on paper chart
M	Coding contrary to CIHI guidelines – where clearly identifiable
N	Hospital policy. Cases where, after discussion with hospital staff, it is identified that a hospital-specific rule or policy has affected the original codes chosen and caused the discrepancy.
O	Coding error – not following code book properly. Cases where discrepancy is clearly the result of incorrect or incomplete code look-ups. This includes dagger/asterisk errors.
P	Information on chart missed. Cases where a code or data was not entered in spite of clear documentation on the chart.
Q	Mathematical/counting error. Cases where a mathematical calculation error has been made such as in SCU days or Waiting Time in Emergency.
R	Downloaded incorrectly. ADT download inconsistent with the rest of the chart.
V	Other. Any identifiable reason that cannot be categorized into the other reason codes.
W	No apparent reason. When the discrepancy cannot be categorized or explained by any of the above codes.

Type B Discrepancies

Reason Code	Reason
C	Re-abstractor unable to access required information.
G	Different interpretation of documentation – either code correct. Documentation may be interpreted more than one way and it is difficult to determine which way is more correct, but neither can be said to be wrong.
H	Order of codes different – either order is correct. Cases where two or more diagnoses were of equal importance and either could have been MRDx.
J	Re-abstractor did not code procedure as it is optional.
S	Database data amended by CIHI edit. Data amended in database and different on chart.
U	Re-abstractor missed data and believes original submission was correct.
Z	Hospital did not code as it is optional but the re-abstractor did.

Type B Discrepancy Example

A woman arrives at the hospital in labour. Her labour is augmented with syntocin, however her cervix fails to open more than 3 cm. In addition, it is noticed that the baby is having decelerations. She is therefore taken to the O.R. where a c-section is performed for dystocia, obstructed labour due to CPD and fetal distress.

Diagnosis Code	Original abstract	Re-abstract
MRDx	661.01 dystocia	660.11 obstructed labour due to CPD
Type 1 Diagnosis	660.11 obstructed labour due to CPD	661.01 dystocia
Type 1 Diagnosis	659.71 fetal distress	659.71 fetal distress

Since there are multiple reasons for the c-section, any of those above could be chosen as the MRDx, and none could be considered an "incorrect" choice. The resulting discrepancy and reason are:

- Discrepancy 6 - MRDx as different type
- Reason code H - Order of codes different - either order correct