HL7 v3 Financial Management (FM)

HL7 Education Summit
August 17, 2004

Michael van Campen
Gordon Point Informatics Ltd.
Michael van Campen

Senior Healthcare Informatics Consultant
Gordon Point Informatics Ltd.

4568 Gordon Point Drive
Victoria, B.C. Canada
V8N 6L3

Phone: 250.812.7858
Fax: 250.381.6108

Email: Michael.vanCampen@GPInformatics.com
Outline

• Quick Development Background
• Financial Management (FM) Overview
  – FM Life Cycle
  – Scope of Messaging
• FIAB – Account & Billing
• FICR – Claims & Reimbursement
• HL7 v3 Implementation
• Summary and Wrap-up
Quick Development Background

How did we get here?
Background

• FM (Financial Management) covers 2 domains in v3
  – FIAB – Account & Billing
  – FICR – Claims & Reimbursement

• FIAB (Account & Billing)
  – Initial material prepared and submitted by Oracle through the FM TC (Technical Committee)
  – Managed and brought forward through FM TC committee efforts and the HL7 v3 ballot process
Background

• FICR (Claims & Reimbursement)
  – Initial material prepared by the Canadian National e-Claims Standard (NeCST)
  – RIM changes were proposed in spring 2001 to redo Financial Acts
  • Coverage (insurance)
  • Invoices
  • Accounts
  • Financial Transactions
  • Remove unused classes
Background

• FICR (continued)
  – Work in Canada originally in v2
    • Still some interest in v2 from international affiliates
    • Moved to v3 in fall 2001
  – Managed and brought forward through FM TC committee efforts, the NeCST project in Canada and the HL7 v3 ballot process
Financial Management (FM) Overview

What is FM?
Financial Management Life Cycle
9/30/2002

- Accounts
- Charges
- Credits
- Clinical Events
- Invoices/ Claims
- Adjudication
- Remittance
- Adjudication
- Remittance

Fill
Bill
Adjudicate
Pay

Provider/Patient Care

FIAB (Billing)
FICR (Claims)

TPA/Payor
Scope of Messaging

- FIAB – 2 components
  - Patient Account management
    - An account collects financial transactions (e.g. charges, credits/reversals, etc.) and can be set up in a hospital as patient billing accounts
    - Accounts can be created, revised, cancelled, nullified, completed (terminated) and/or reactivated
  - Post transactions
    - Post transactions against an account such as charges, credits
Scope of Messaging

• FICR – 7 components
  – Eligibility
    • Query to determine insurance coverage in effect for a specified date
    • Not specific enough to determine if provider will be paid if service delivered
  – Authorization
    • Request authorization of an Adjudicator to reserve funds for the delivery of healthcare services
    • Sometimes a requirement to obtain authorization before a service is provided
Scope of Messaging

• FICR (continued)
  – Coverage Extension
    • Extending coverage for special circumstances
      – e.g. in order to pay for a specific drug, you must first request coverage extension with appropriate supporting documentation
  – Pre-Determination
    • Mock invoice/claim to determine how an Adjudicator would adjudicate the claim at a single point in time (now)
    • Not a guarantee of payment
Scope of Messaging

• FICR (continued)
  – Invoice
    • Submit an invoice for adjudication and possible payment of one or more billable items
    • Adjudication results, including explanations
    • Coordination of benefits support
  – Payment
    • Payment advice
  – SOFA (Statement of Financial Activity)
    • Financial reconciliation queries
FIAB – Account & Billing

Digging deeper into the details
Account Management

OldAccount

classCode*: <= ACCT
moodCode*: <= EVN
0..* coveringInsurancePolicy
1..1 carrierRole*
moodCode*: <= EVN
0..1 priorOldAccount
coverage

author
id: SET<II> [0..*] (Insurance policy identifier)
classCode*: <= UNDWRT
moodCode*: <= COVBY
0..1 code: CD CWE [0..1] <= ActInsurancePolicyCode
typeCode: <= SUCC
Information
statusCode: CS CNE [0..1] <= ActStatus
title: ST [0..1]
beneficiary
0..1 underwritingCarrierOrganization*
typeCode*: <= BEN

currencyCode: CE CWE [0..1]
interestRateQuantity: RTO<MO,PQ> [0..1]

allowedBalanceQuantity: IVL<MO> [0..1]

Codes:
- ActInsurancePolicyCode
- ActStatus
- ActFinancialTransactionCode
- PatientImportance

Note:
- Post Financial Transaction
  - CarrierOrganization
    - DeterminerCode
    - Name
    - Telecom
    - Address

- Guarantor
  - LanguageCode
  - Language

Note:
- FinancialTransaction
  - Reference
  - Payor
  - Payee
  - ServiceInformation
  - FeeCode
  - EffectiveTime
  - Charge
    - Component
      - Component
      - Guarantor
      - GuarantorChoice
      - GuarantorLanguage

CMET:
- ENC
- A_Encounter
- A_Billable
- COCT_MT010000
- COCT_MT020000
- COCT_MT030200
- COCT_MT110100
- COCT_MT280000

CMET:
- ACT

Clarity:
- Patient
  - Encounter
  - Guarantor
  - Account
  - Charge
  - Information

Clinical Justification

Note:
- Financial Transaction is either a credit or a debit to the account. In this case, only 1 is specified.
Ex. 1: Create Account

Insurance Information

Patient

Account

Encounter

Guarantor

[Diagram of patient billing and financial transactions involving insurance and guarantor roles, with multiple nodes and edges indicating relationships and data points.

Note: The diagram illustrates the relationships between patients, encounters, guarantors, and financial transactions, with emphasis on account management and post financial transaction processes.]
Ex. 2: Post Charge

FIAB Committee
Ballot #7
04 Mar 10

Note:
Entry point for account management messages

Note:
OldAccount
*: <=
InsurancePolicy
moodCode
*: <=
id: SET<II> [0..*] (bank account, transit number, etc.)
classCode
*: <=
COV
0..* coveringInsurancePolicy
1..1 carrierRole  *

Note:
statusCode: SET<CS> CNE [0..*]
moodCode
*: <=
EVN
CarrierRole
0..1 priorOldAccount
coverage

Note:
classCode
*: <=
code: CD CWE [0..1] <=
ActInsurancePolicyCode
typeCode
*: <=
AUT
author

Note:
classCode
*: <=
code: CD CWE [0..1] <=
ActAccountCode
typeCode
*: <=
AUT

Note:
effectiveTime: GTS [0..1]

Note:
ReferencedFinancialTransaction
id: SET<II> [0..*]
classCode
*: <=
XACT
reference
*: <=
REFR
XACT

Note:
component
*: <=
item
*: <=
subject
typeCode
*: <=
SBJ
0..1 account

Note:
Guarantee is scoped for multiple services

Note:
GuarantorOrganization
*: <=
author
*: <=
OF

Note:
GuarantorRole
*: <=
subject
typeCode
*: <=
COMP
0..1 guarantorRole

Note:
Guarantor is also the subject of the account

Note:
The service information (e.g. what is posted or charged) is noted in FinancialTransaction.

Note:
Guarantor takes financial responsibility over the account

Note:
Guarantor Organization
*: <=
author
*: <=
OF

Note:
Guarantor Language
*: <=
LanguageCommunication
determinerCode
*: <=
HLD

Note:
The price of a service is noted in InvoiceElement.

Note:
Guarantor takes financial responsibility over the account

Note:
The service information (e.g. what is posted or charged) is noted in FinancialTransaction.

Note:
Guarantor Organization
*: <=
author
*: <=
OF

Note:
Guarantor Language
*: <=
LanguageCommunication
determinerCode
*: <=
HLD
Ex. 2: Post Charge

FIAB Committee
Ballot #7
04 Mar 10
FIAB Status

• FIAB has undergone 7 committee level ballots
• Currently being balloted at committee level
• Mappings
  – to Chapter 6 in v2.x - pending
FICR – Claims & Reimbursement

Digging deeper into the details
Claims Architecture

• A health care Invoice is made up of 2 distinct parts
  – Financial
    • Dollars & cents
    • Insurance
    • Identification of who pays and has paid
  – Clinical
    • Justifies what is being requested for payment

• Both financial and clinical are derived from RIM
  – Clinical content is leveraged from other committees in HL7 (e.g. Pharmacy)
Claims Architecture
AdjudResultsCarrierRole

Standard

Invoice, Auh, Cov Ext, Pre-Det Request

Entry Point for Invoice, Authorization, Coverage Extension, Pre-determination requests

Note:

If an Adjudicator adjudicates for multiple insurance policies (EOBs)

PRP - auth, pre-det, cov ext

ACCT

XACT

*: <=

ActMoodIntent

*: II [1..1] (Tax number, such as GST, PST number)

*: II [1..1] (Item ID, Tracking #, etc.)

*: CS CNE [1..1] <=

code

*: CS CNE [1..1] <=

text* ST [0..1] (pickup instructions)

CMET:

(ACCT)

CMET:

1..1 accountPayee  *

CREDIT

typeCode

Note:

typeCode

*: <=

PPRF

RSON

Note:

predecessor

typeCode

*: <=

typeCode

classCode

Note:

target act attributes with no target act associations

InvoiceElementChoice

*: <=

EVN

0..* justifiedInvoiceElementGroup  *

Note:

To tie 2 EOBs together be the same for each complete group and

classCode

Invoice Groupings.

Domain for InvoiceElementDetail.code

is GenericBillableItemModifier

Coverage

(insurance)

Explanation of Benefits (EOB)

Payment Intent

Payment Request

COB Package

Note:

Override

Contract

Attachment

Reference

Billable Act

Invoice Groupings

[ line items ]
Ex. 1: Invoice (Claim)
Ex. 2: Adjudication Results
Ex. 2: Adjudication Results

FICR Normative Standard 03 Nov 23

Payment Intent

Coverage (insurance)

Invoice Groupings

[ line items ]

COB Package

Explanation of Benefits (EOB)

Statement of Financial Activity (SOFA)
Ex. 3: Payment Advice
Ex. 3: Payment Advice

[Diagram showing Payment Advice, Explanation of Benefits (EOB), and Statement of Financial Activity (SOFA)]
FICR Concepts

• Concepts
  – Invoice Structure
  – Invoice Adjudication
  – Billable Acts & Adjudication Observations
  – Coordination of Benefits (COB)
  – Deferred Adjudication
  – Re-Adjudication Results
  – Spontaneous EOBs
  – Code Substitution
  – Taxes

• Other concepts
  – Statement of Financial Activity (SOFA)
  – Re-Adjudication Request
Invoice Structure

- Payment Request
  - Financial transaction requesting payment
  - One or more invoice elements

- Invoice Elements
  - Invoice Grouping
    - structure to describe the justification for the payment request
  - Contains
    - Root Invoice Element Group
    - Nested Invoice Element Group
    - Invoice Element Detail
Invoice Structure

• Invoice Elements (continued)
  – Invoice Groups – 2 types
    • Root Invoice Element Group
      – Describes the style of invoice (e.g. Rx Dispense, Clinical Service)
      – References to patient, insurance, billable acts, contracts, attachments
      – Only 1 Root Invoice Element Group per invoice element tree
    • Nested Invoice Element Group
      – Middle of the Invoice Element hierarchy
      – Allows for collection of detailed items
      – Cannot be a leaf concept
Invoice Structure

• Invoice Elements (continued)
  – Invoice Element Detail
    • Describes the item being billed (e.g. office visit, cast setting, knee mobilization, etc.)
    • Must be a leaf concept
  – Valid Invoice Grouping contains as a minimum the Root Invoice Element Group and 1 Invoice Element Detail
  – Most references are to Root Invoice Element Group in Invoice Grouping
Invoice Structure – Another View

- **Billable Acts**
  - Product
  - Service
  - Rx Dispense
  - Pref Accom

- **ROOT Invoice Element Group**
- **Payment Request**
- **Coverage**
  - One or more insurance policies
  - Covered Party (Patient)
  - Policy Holder
- **Explanation of Benefits**
  - 1 EOB included from each upstream adjudicator for Coordination of Benefits (COB)

- **Invoice Element Group**
  - Invoice Element Detail
  - Invoice Element Detail
Invoice Structure – Multiple Invoice Groupings

- A specific invoice can have 1 or more Invoice Groupings

- Each Invoice Grouping is independent from each other
  - Adjudication of each Invoice Grouping is not directly dependent on any other Invoice Grouping
  - Adjudication Results for each Invoice Grouping can be reported back to the Provider independently

- Some Benefit Groups can restrict the number of Invoice Groupings in an Invoice
Invoice Structure – Multiple Invoice Groupings

3 Invoice Groupings
Invoice Structure – Billable Acts

• Ability to add in clinical content that justifies the financial dollars
• Identifies the Who, What, Where, When, Why and optional How
• Sample billable acts
  – Clinical Service – focus is service
  – Clinical Product – focus is sale or rental of a product
  – Pharmacy Dispense
  – Vision Dispense
  – Oral Health Service
  – Preferred Accommodation
Billable Acts – Preferred Accommodation

A_BillablePreferredAccommodation
COCT_RM310000
v6.3 - 03 Jun 20

AccommodationSupplied

AccommodationRequested

Encounter

MedicalService

AccommodationRequestorRole

MinimumAvailableAccommodation

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Medical Service

Note:
Medical Service

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location

Note:
Patient classes are not referenced in the billable acts, as they are noted in the parent model (e.g. Invoice message) as the CoveredPartyAsPatient

Note:
Responsible person (Only need code if not physician)

Note:
accommodation location
Sample Invoice Structures

• Each Invoice Grouping is typed
  – Clinical Service
  – Sessional/Block
  – Clinical Product
  – Clinical Service + Clinical Product
  – Financial
  – Rx Dispense
  – Rx Compound
  – Preferred Accommodation
  – Vision Product Dispense
  – Oral Health Service

• Rules can be applied against the Invoice Grouping, including vocabulary, structure of the invoice, clinical content (billable acts) required, etc.
Sample Invoice Structures

Invoice Type: CSINV
Clinical Service

- **ROOT Invoice Group**
- **Billing Arrangement**
  - FFS, CONT, ROST, CAP

- **Service 1**
  - **Billable Acts**
    - **Service**

- **Service 2**
  - **Billable Acts**
    - **Service**

- **Service n**
  - **Billable Acts**
    - **Service**

Billable Act attached to Invoice Element Detail

Include all services in 1 Invoice Grouping that need to be adjudicated together
Sample Invoice Structures

Invoice Type: SBFINV
Sessional or Block Fee

ROOT Invoice Group

Billing Arrangement
SESS, BLK

Fee for session (e.g. $40)

Session/Block

Billable Acts
Attached to Invoice
Element Detail

Billable Acts
Service

Billable Acts
Service

... 

Billable Acts
Service

Services delivered during same session
[same day or multiple days]
Sample Invoice Structures

Invoice Type: CPINV
Clinical Product

Billing Arrangement
FFS, CONT, ROST, CAP

Billable Acts attached to Invoice Group

Include all products in 1 Invoice Grouping that need to be adjudicated together

Product

Tax 1

Tax n

Product

Tax 1

Tax n
Invoice Type: CSPINV
Clinical Service + Clinical Product

- Service 1
  - Billable Acts
    - Service
  - Product
    - Product
- Tax 1
  - Tax n

Include all services and/or products in 1 Invoice Grouping that need to be adjudicated together.

Must contain at least 1 service and 1 product, but may contain more of each.

Billing Arrangement:
FFS, CONT, ROST, CAP
Sample Invoice Structures

Invoice Type: FININV
Financial Only

No billable acts

Include all invoice details in 1 Invoice Grouping that need to be adjudicated together
Sample Invoice Structures

Invoice Type: RXDINV
Pharmacy Dispense

ROOT Invoice Group

Billing Arrangement FFS, CAP

Billable Act attached to Invoice Element Group

Billable Acts
- Rx Disp

Drug
- Drug
- Drug Markup

Prof. Fee

Service
- Service
- Billable Acts

Product
- Product
- Tax 1
- Tax n

Billable Act attached to Invoice Element Detail

Billable Act attached to Invoice Element Group
Sample Invoice Structures

Invoice Type: RXCINV
Pharmacy Compound

Billable Act attached to Invoice Element Group

Billable Acts
- Rx Disp

Compound Drug

Prof. Fee

Compound Supplies

Service

Compound Ingredient

- Ingredient 1
- Ingredient Markup 1
- Ingredient 2
- Ingredient Markup 2

Compound Fee

Compound Markup

Compound Supply

Compound Supply Markup

Recursive relationship for compounds of compounds

Invoice group:
- Billing Arrangement FFS, CAP

Group ROOT

Invoice group:
Sample Invoice Structures

Invoice Type: PAINV
Preferred Accommodation

- ROOT
  - Invoice Group
    - Billing Arrangement
      - FFS
    - Pref Accom
      - Stay 1
        - Billable Act
          - attached to Invoice Element Detail
    - Billable Acts
      - Pref Accom

Include only 1 preferred accommodation stay in 1 Invoice Grouping
Sample Invoice Structures

Invoice Type: VRXINV
Vision Dispense

Billable Acts:
- Vision
- Product

Billable Act attached to Root Invoice Element Group

ROOT Invoice Group

Billing Arrangement
FFS

- Lens
- Lens Fee
- Dispense
- Lens Fee
- Dispense
- Frame
- Frame Fee
- Dispense
- Discount

DRAFT
Sample Invoice Structures

Invoice Type: OHSINV
Oral Health Services

Billable Act attached to Invoice Element Group or Invoice Element Detail, but not Root Invoice Element Group

ROOT Invoice Group

Billing Arrangement FFS, CAP

Billable Act attached to Invoice Element Group

Service

Service Group

Billable Acts

Oral Hlth Service

Product

Billable Acts

Product

Service

Service

Product

Tax 1

“n” levels deep & wide

Include all services and products in 1 Invoice Grouping that need to be adjudicated together
Invoice Adjudication

- Adjudicator adjudicates each Invoice Grouping in an Invoice independent of each other
- Adjudicator creates an Explanation of Benefits (EOB) to indicate how they adjudicated the Invoice Grouping
- EOB is tied to a specific insurance policy and Invoice Grouping
- For coordinated Invoice Groupings, more than 1 EOB can be returned by the Adjudicator (more later)
Invoice Adjudication

• For each EOB, every submitted Invoice Element (Detail and Group) is adjudicated:
  – As submitted (no changes)
  – With adjustment (some changes)
    • Adjustments, no Financial Impact
  – As refuse (not accepted)

• Adjudication transformation represents the adjudication of an invoice element, with reason codes describing “why”
Invoice Adjudication

The Question

EOB – Explanation of Benefits

The Answer

Adjudicate:
- As Submitted
- With Adjustment + Adjust, no Financial Impact
- Refuse + Reason Codes
Invoice Submission and Adjudication Example #1

- Pharmacy invoice of $26.00
  1. $20.00 for the drug cost
  2. $6.00 for the professional fee
- Adjudicator adjudicates to $11.08
  1. Reduce the drug cost to $15.00
  2. Accepts professional fee of $6.00
  3. Indicates a deductible of -$5.00
  4. Patient copay is -$4.92
  5. Indicates patient is nearing their limit of $1000
Invoice Submission and Adjudication Example #1

Total Due $26.00

ROOT
Invoice Amt. $26.00

Drug $20.00
Prof Fee $6.00

Adjud w/ Adjust

Adjud as Submit

Prof Fee $6.00

Total Payable $11.08
Nearing Max $1000 Information Item

ROOT
Invoice Amt. $11.08

Drug $15.00

Adjud w/ Adjust

Deduct. -$5.00
CoPay -$4.92

Adjudicator Adjustments
Invoice Submission and Adjudication Example #2

• Oral Health invoice of $125.00
  – $50.00 for a cleaning
  – $75.00 for an xray

• Adjudicator adjudicates to $70.00
  – Accepts cleaning fee of $50.00
  – Only pays $45.00 for the xray
  • Normally pays $70.00
  • Patient copay amount of -$20.00 is deducted
  • Patient copay percentage of -$5.00 is calculated and deducted
  – Overall deductible of -$25.00 is applied
Invoice Submission and Adjudication Example #2

Total Due $125.00

ROOT
Invoice Amt. $125.00

1101 $50.00
2101 $75.00

Adjud as Submit
1101 $50.00

CoPay Amount -$0.00
CoPay Percent -$0.00

Allowable
1101 $50.00/unit

2101 $70.00/unit

Adjud w/ Adjust
2101 $70.00

CoPay Amount -$20.00
CoPay Percent -$5.00

Allowable
2101 $70.00/unit

Total Payable $70.00

ROOT
Invoice Amt. $70.00

Adjud w/ Adjust
2101 $45.00

Deduct -$25.00

CoPay Percent expressed as $50.00 * 10% (factor)
Billable Acts & Adjudication Observations

• Billable Acts
  – Clinical information to support the Invoice, that is domain (benefit group) specific
  – Describes what was done
  – Examples are Pharmacy Dispense, Clinical Service, Clinical Product

• Adjudication Observations
  – Adjudicator initiated observations such as Drug Interactions that may be cause for adjudicate as refuse (or warning)
Drug interaction could cause adjudicated amount to be $0.
Coordination of Benefits (COB)

- Each Adjudicator returns a Coordination of Benefits (COB) Package for each Invoice Grouping, per insurance policy, that they have adjudicated.

- The Provider includes all previous COB Packages when submitting the same Invoice Grouping to downstream Adjudicators:
  - Adjud 2 receives the COB Package from Adjud 1
  - Adjud 3 receives the COB Packages from Adjud 1 & 2
  - And so on…
Deferred Adjudication

• Not every Adjudicator will be able to adjudicate invoices real time
  – Some Providers batch Invoice Groupings and submit at the end of the day or when convenient
  – Some Adjudicators queue Invoices and adjudicate during non-peak hours
  – Some Invoices require manual review

• Adjudicators need flexibility
  – Group adjudicated Invoices that may have arrived at different times
Deferred Adjudication

Invoice #1 - $26.00
- Total Due: $26.00
- ROOT Invoice Amt.: $26.00
- Drug: $20.00
- Prof Fee: $6.00

9:00 AM
Send Invoice for Payment
Adjudicator sends acknowledgement and will respond with completed adjudication results later

Invoice #2 - $36.00
- Total Due: $36.00
- ROOT Invoice Amt.: $36.00
- Drug: $30.00
- Prof Fee: $4.00
- Upcharge: $2.00

Total Payable $47.08

Coordination of Benefits (COB) Pkg

Invoice Amt. $11.08
- Adjud w/ Adjust
- Drug: $15.00
- Deduct.: -$5.00
- CoPay: -$4.92

Adjudicator Adjustments

References to submitted invoice (not shown)

Coordination of Benefits (COB) Pkg

Invoice Amt. $36.00
- Adjud w/ Adjust
- Drug: $30.00
- Prof Fee: $4.00
- Upcharge: $2.00

Adjudicator Adjustments

References to submitted invoice (not shown)

10:00 AM
Send Invoice for Payment
Adjudicator sends acknowledgement and will respond with completed adjudication results later
Unsolicited Re-Adjudication Results

- Adjudicator performs
  - Audit function and determines that previous adjudication results were incorrect
  - Retroactive adjustments
- The net effect of the re-adjudication is sent in the adjudication results message, with a pointer to the original adjudication results
- May be included in a Payment Advice
Re-Adjudication Results

Original Adjudicated Results

- Total Due: $100.00
- Invoice Amt.: $100.00
- Service A: $100.00
- Adjud as Submit

- Total Payable: $100

Re-adjudicated Results

- Total Payable: $10.00
- Invoice Amt.: $10.00
- Service A: $110.00
- Adjust: -$100.00
- Adjud w/ Adjust

Use SUCC AR to point to previous Adj Rslts
Spontaneous EOBs

• In some situations, an Adjudicator is aware of multiple insurance policies that can be applied against an Invoice Grouping
  – Provider has not submitted all policies with the Invoice Grouping

• Therefore, the Adjudicator may return an unexpected EOB (spontaneous) to the Provider
  – 2 variants: 1 Payor and multiple Payors
Spontaneous EOBs – 1 Payor

**EOB 1**
- Invoice Amt.: $50.00
- Service: $50.00
- Total Due: $50.00

**EOB 2**
- Invoice Amt.: $15.00
- Service: $15.00
- Total Payable: $15.00

**Payor 1**
- Total Payable: $50.00
Spontaneous EOBs – 2 Payors

Invoice
Amt.
$50.00

Service
$50.00

Total Due
$50.00

ROOT
Invoice
Amt.
$50.00

Policy 1

Service
$50.00

Adjud w/ Adjust

Adjud w/ Adjust

EOB 1

EOB 2

Total Payable
$35.00

Total Payable
$15.00

Payor 1

Payor 2

Include both payloads in 1 message response

Total Payable
$35.00

Policy 1

Policy 2
Code Substitution

• On occasion, an Adjudicator will perform an ad-hoc code substitution for the billing (fee) code submitted
• Can be due to an outdated code being submitted
• May be 1:1, 1:n or n:1
Reason Code: Submitted billing code replaced by new billing code(s).

Adjud w/ Adjust if $ submit <> $ adjud
Code Substitution – n:1 (2)

Total Due $50.00

ROOT Invoice Amt. $50.00

Service A $30.00

Service B $20.00

Adjud as Refuse

Adjud w/ Adjust

Total Payable $40.00

ROOT Invoice Amt. $40.00

Service A $0.00

Service B $0.00

Service C $40.00

Reason Code: Submitted billing code replaced by new billing code(s).

Adjud w/ no Finan. Impact if $ submit = $ adjud

Reason Code: Submitted billing code replaced by new billing code(s).
Taxes

• Taxes (on products and/or services) can be specified under 2 scenarios
  – Explicit Tax Model
    • Each taxable item has an explicit, associated tax amount specified
  – Lump Sum Tax Model
    • All taxable items are totaled for an invoice and taxes are specified once, for the complete invoice

• Problems exist with lump sum model, as it is not easy to determine which taxes apply to which items in an Invoice
  – See scenario on next page
Tax Models

Explicit Tax Model

ROOT
Invoice
Amt. $55.70

- Product Group $33.60
  - Product 1 (syringe) $30.00
  - Tax1 (GST) $2.10
- Product Group $22.10
  - Product 2 (bandage) $20.00
  - Tax2 (PST) $1.50

Lump Sum Tax Model

ROOT
Invoice
Amt. $55.70

- Product 1 (syringe) $30.00
- Product 2 (bandage) $20.00
- Tax1 (GST) $4.20
- Tax2 (PST) $1.50
Other Concepts

• Statement of Financial Activity (SOFA)
  – Can be included on adjudication results
    • Number/amount of submitted, adjudicated, paid invoices
    • Used to help keep Provider and Adjudicator systems synchronized
  – Queries for SOFA summary & details
    • Summary of counts and amounts ($) for a number of categories
    • Detail query supplies the adjudicated details that make up the counts and amounts
Other Concepts

• Re-Adjudication Request
  – Request by Provider to re-adjudicate an Invoice Grouping based on new circumstances
  – Text only with reference to Invoice
Upcoming FICR Projects

What’s Next?
FICR Status

• FICR has passed membership ballot and is now normative (release 1)
• Release 2
  – Chiropractic & Physiotherapy claims
  – Authorization messages
  – Pending Normative status
• Release 3
  – Oral Health, Vision Care, Physician claims
  – Minor change requests from early adopters
  – Health Insurance Commission (Australia) requirements
FICR Status

• Mappings
  – Completed
    • CPhA v3 (Canadian Pharmacy Claims)
    • CDA (Canadian Dental Claims)
  – Pending
    • X12/HIPAA (US Healthcare Claims)
    • NCPDP (US Pharmacy Claims)
• X12N/HL7 Interoperability project
FICR Status

• New Messages, post Release 3
  – Enrollment
  – Requests for Information & Results
  – Supporting Documents
    • Look at HL7 CDA

• Continue efforts to align v2 claims efforts with v3 FICR domain
HL7 v3 Implementation

Success!
The implementation:

- BCE Emergis, in conjunction with chiropractic and physiotherapy health care providers, have implemented a sub-set of NeCST messages for the Workplace Safety & Insurance Board of Ontario (WSIB)
  - Invoice Adjudication Request
  - Invoice Adjudication Results
  - Invoice Nullify Request
  - Invoice Nullify Results
  - Payment Advice
  - Polling
- First production messages were received in February 2004
General Project Background

• The players…
  – BCE Emergis
    • Publicly traded business enterprise
    • Canada’s largest Third Party Administrator (TPA)
    • Processes claims on behalf of a large number of clients, both in Canada and the U.S.
    • Founding member of NeCST and a strong advocate of national standards development
  – WSIB
    • Public agency, funded by employer contributions
    • Canada’s largest Workers Compensation Board and 4th largest in North America
    • Founding member of NeCST and a strong advocate of national standards development
  – Ontario Chiropractors Association (OCA)
    • Represents its members in Ontario and at the national level
    • Provides practice management services for its members
General Project Background

• The players…
  – Chiro/Physio Providers
    • Approximately 2,300 providers
    • Some offices are large (e.g. 60 in 1 office), but majority are small 1 to 2 person operations
  – Vendors
    • Initial implementation was undertaken with 2 vendors, one representing the OCA and the second being a private s/w vendor
    • High interest in participation by other vendors, as there is the opportunity to roll out product to other markets
  – NeCST Project
    • Willing to support an early adopter through technical assistance
Current Environment

• The environment...
  – Manual claims submission process to WSIB
  – Some s/w vendors (including the OCA) have sophisticated practice management products that generate paper invoices for manual submission
Key Project Drivers

• Key project drivers
  – WSIB mandated the use of electronic claims submission
    • Similar to the BC Workers Compensation Board that also provided financial incentives
    • This provided the environment for an EDI (Electronic Data Interchange) solution, with integrated claims processing and practice management s/w solutions
      – Alternative was web forms with double entry
      – As OCA provides (simplified) practice management s/w to its members, most have picked up the s/w for their practice
  – Support from the OCA and providers in general to automate manual processes for faster and more accurate adjudication and payment of claim
Selling the Implementation to Vendors

• Need to consider drivers for vendors
  – Financial
    • Will it increase or decrease or maintain market share?
    • Will new opportunities arise out of implementation?
  – Technical
    • Hide complexities of messaging in an API (Application Program Interface)
  – Product capabilities
    • Some new capabilities can be extended to s/w users

• Vendors start to get interested when an implementation becomes real (vs. planned)

• Observation
  – Once 1 vendor starts to implement, many follow
BCE Application Program Interface (API)

• BCE Emergis decided to develop an Application Program Interface (API) to assist in easier uptake by vendors
  – API connects to a vendor’s application
  – Hides communications and message structures
• BCE API includes
  – Network addressing
    • Send/receive application identifiers, etc.
  – Communication components
    • TCP/IP
    • Reliable delivery (Send/Receive Acks)
    • Polling for messages
  – Message parsing
    • Create & unravel HL7 v3 messages
BCE Application Program Interface (API)

• BCE observation on integration efforts
  – 80% effort absorbed by the API
    • once, by BCE Emergis
  – 20% effort absorbed in connecting and using the API
    • for each vendor/implementation
  – Real world: the 2 vendors took less than 3 days to integrate the API into their applications – once mapping was complete

• Ownership of API
  – Vendors see value in API, but no ownership
    • Can’t fine tune or troubleshoot the API for their particular s/w solution
  – If there are problems, they contact API
    • Easy to blame API developer if there are problems with their s/w
BCE Application Program Interface (API)

• New message schemas
  – New message schemas require ongoing support by API developer (BCE Emergis)
  – Distribution and rollout needs to be managed
  – However, re-certification of vendors can be reduced
HL7 v3 Implementation – Key Points

• Find a champion in the organization to sell
• Bring vendors early in the plan
  – Consider use of API and financial incentives
  – Develop sample messages
• Plan for some hiccups with new technology
• Work with HL7 domain experts to map & modify HL7 v3 messages
• Work with HL7 technical experts to leverage the XML ITS
• Get XML expertise on your team!
  – May need to help vendors
v3 Financial Management (FM) Tutorial

Questions?

Feedback?
Contact Information

• Michael van Campen
  Gordon Point Informatics (Canada)
  Michael.vanCampen@GPinformatics.com
  250.812.7858

• NeCST website