Military Electronic Health Records

Veterans Service Organizations

October 28, 2004

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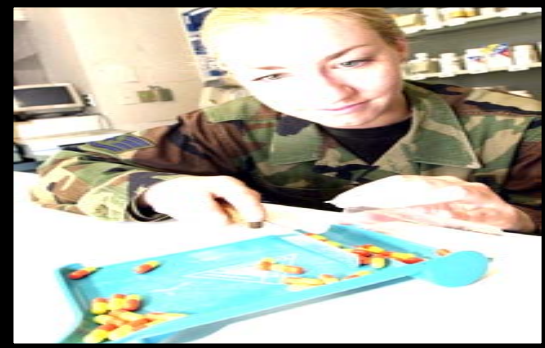
Chief Medical Information Officer,
Information Management, Technology, and Reengineering/Information Management
Office of the Assistant Secretary of Defense (Health Affairs)

Who Are We?
Military Health System Statistics

- 8.9 million eligible beneficiaries
  - Active duty military
  - Family members (spouses & children)
  - Retirees
  - Other eligible populations
- 75 hospitals & medical centers
- 461 medical clinics
- 132,000 personnel
- 1.46 million outpatient visits/week
- 1.99 million prescriptions/week
- 2,013 births/week



Who Are We?

Military Health System Levels of Care

CARE OUTSIDE THEATER

ENROUTE CARE

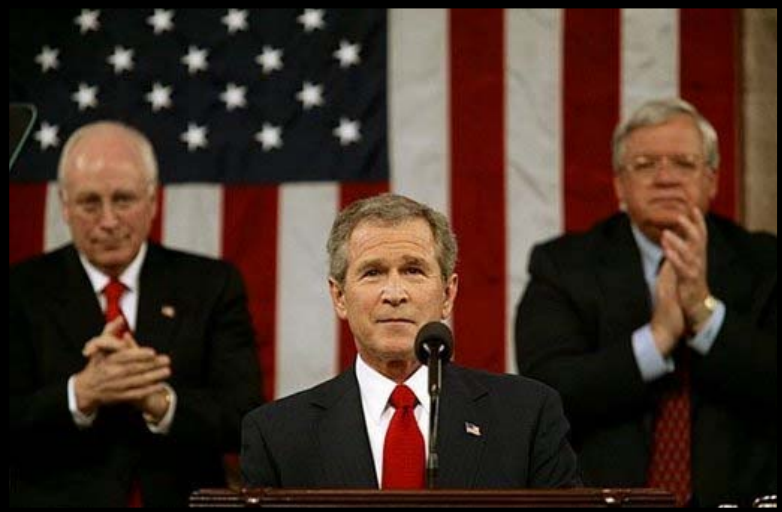
THEATER HOSPITALIZATION

FORWARD RESUSCITATIVE SURGERY

FIRST RESPONDER

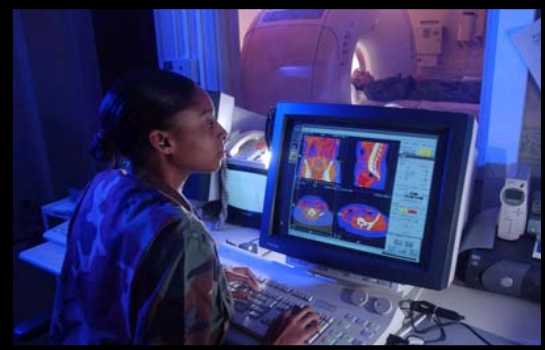
"By computerizing health records, we can avoid dangerous medical mistakes, reduce costs, and improve care."

President George W. Bush
State of the Union Address
January 20, 2004



What Do We Have in Place?
Composite Health Care System I (CHCS I)

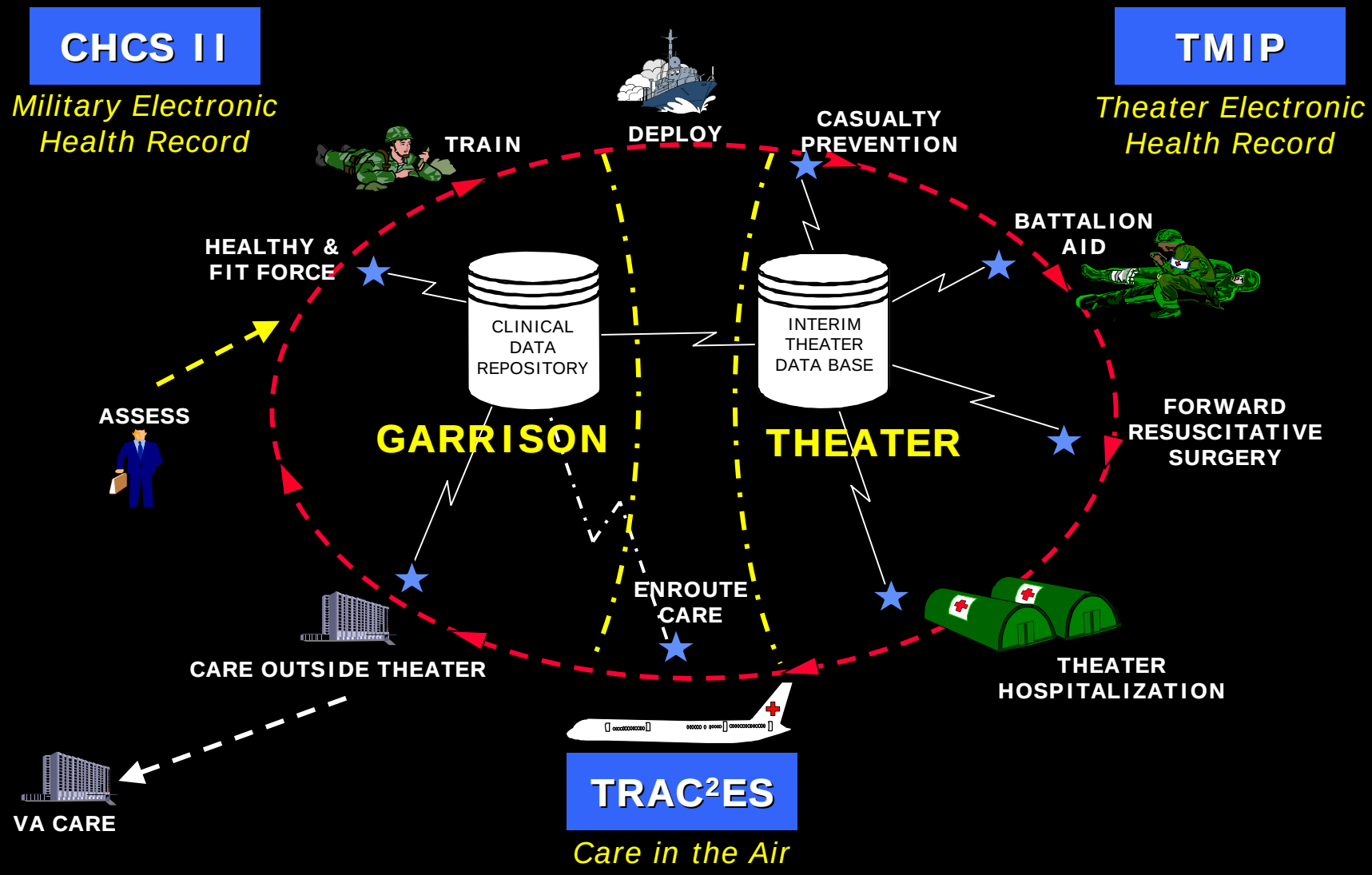
- Full computerized provider order entry (CPOE) and results retrieval for medications, laboratory tests, and radiology procedures
- Also integrates appointing, coding, and other administrative functions
- Fully operational since 1993
- 102 host systems serving 500+ hospitals and medical clinics
- Institution-centric



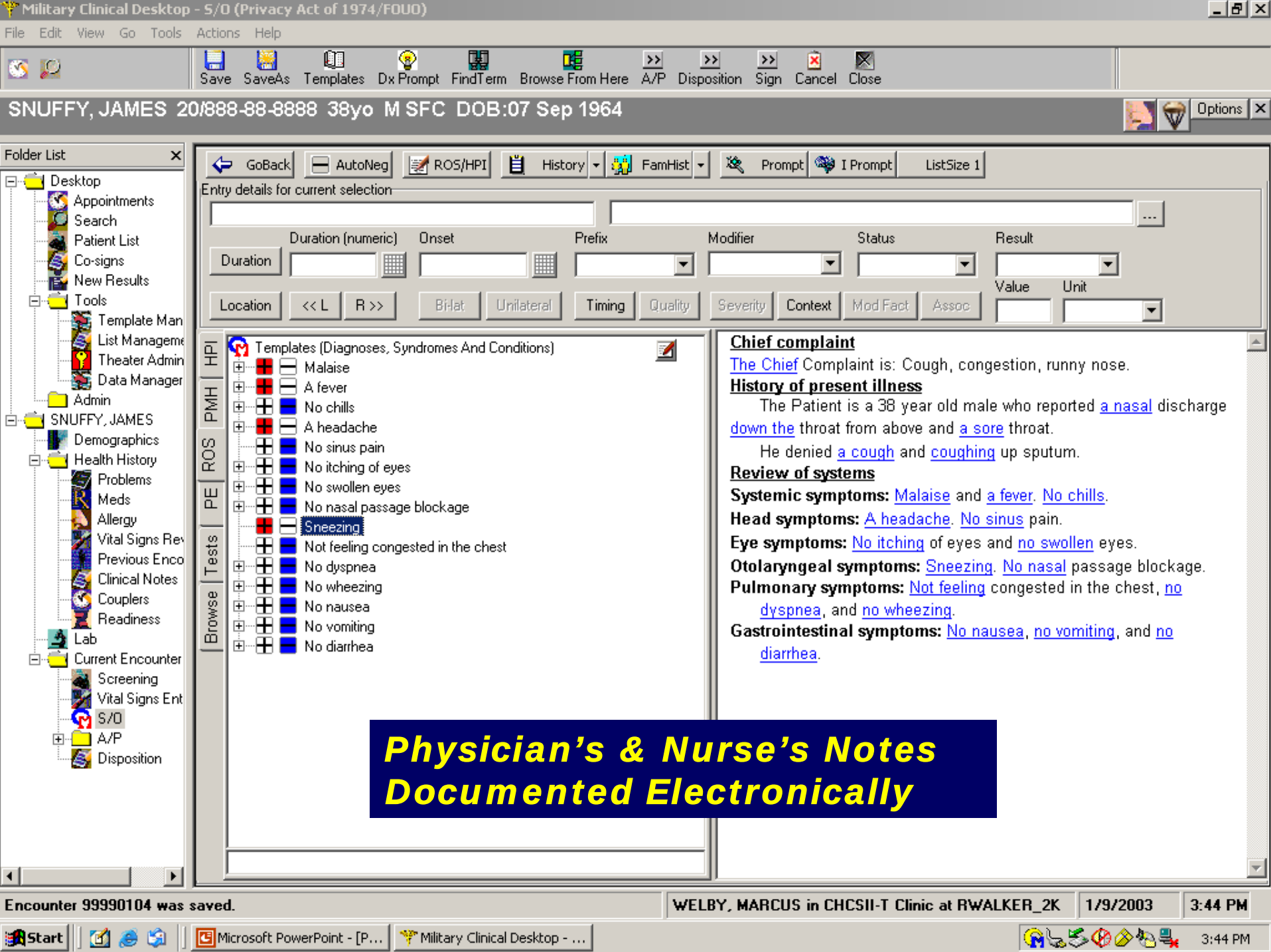
What Are We Working on Now?
Composite Health Care System II (CHCS II)

- Enterprise-wide, scalable, patient-centric medical and dental information system
- Comprehensive electronic health record
- Secure, role-based access
- Structured documentation
- Global database
- Clinical functionality for Theater

Integrating the Military Electronic Health Record



Documentation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Save SaveAs Templates Dx Prompt FindTerm Browse From Here A/P Disposition Sign Cancel Close
SNUFFY, JAMES 20/888-88-8888 38yo M SFC DOB:07 Sep 1964
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Duration
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HPI PMH ROS PE Tests Browse
Templates (Diagnoses, Syndromes And Conditions)
Malaise
A fever
No chills
A headache
No sinus pain
No itching of eyes
No swollen eyes
No nasal passage blockage
Sneezing
Not feeling congested in the chest
No dyspnea
No wheezing
No nausea
No vomiting
No diarrhea
Chief complaint
The Chief Complaint is: Cough, congestion, runny nose.
History of present illness
The Patient is a 38 year old male who reported a nasal discharge down the throat from above and a sore throat.
He denied a cough and coughing up sputum.
Review of systems
Systemic symptoms: Malaise and a fever. No chills.
Head symptoms: A headache. No sinus pain.
Eye symptoms: No itching of eyes and no swollen eyes.
Otolaryngeal symptoms: Sneezing. No nasal passage blockage.
Pulmonary symptoms: Not feeling congested in the chest, no dyspnea, and no wheezing.
Gastrointestinal symptoms: No nausea, no vomiting, and no diarrhea.
Physician's & Nurse's Notes Documented Electronically
Encounter 99990104 was saved.
WELBY, MARCUS in CHCSII-T Clinic at RWALKER_2K
1/9/2003
3:44 PM
Start
Microsoft PowerPoint - [P...
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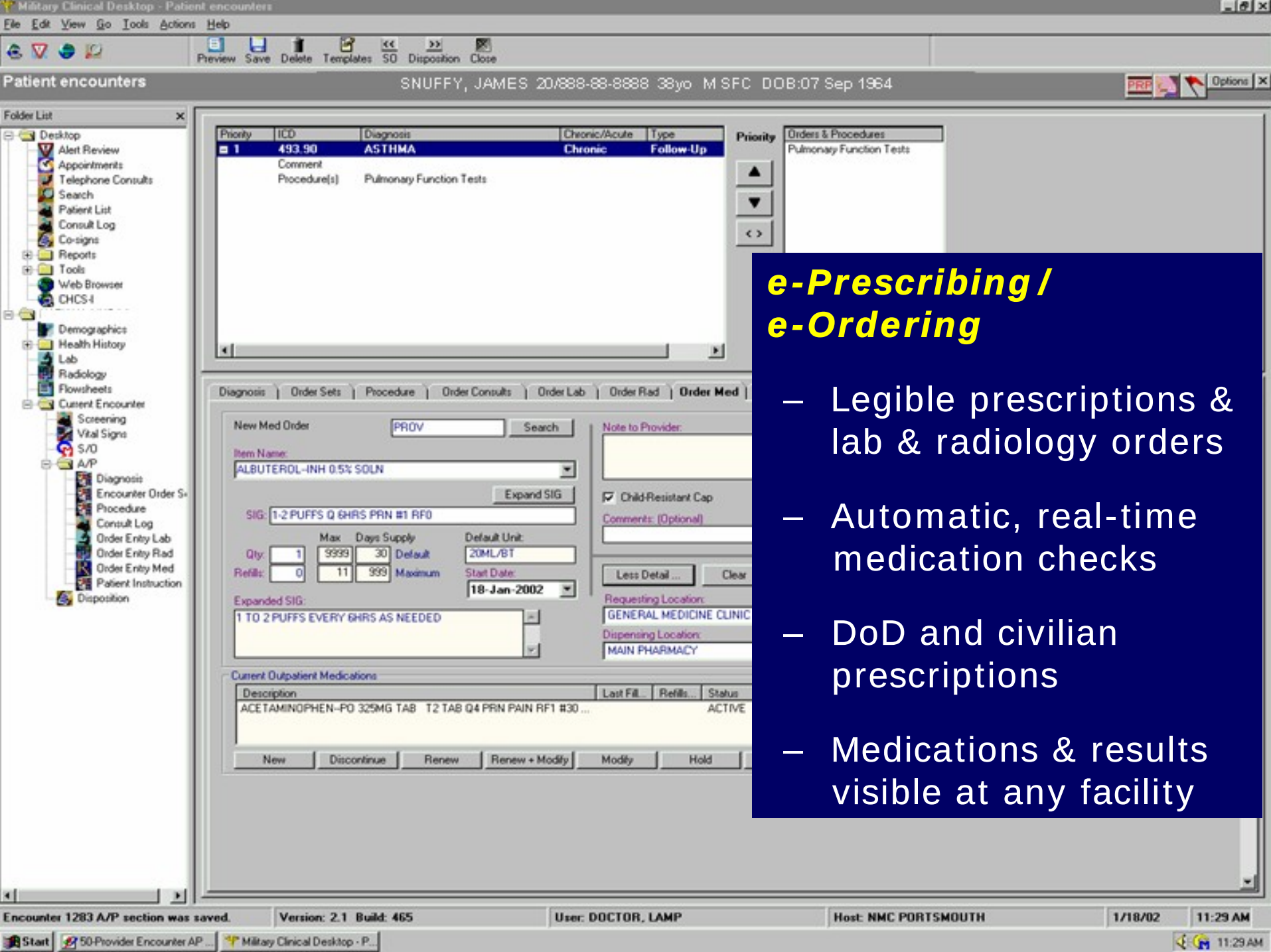
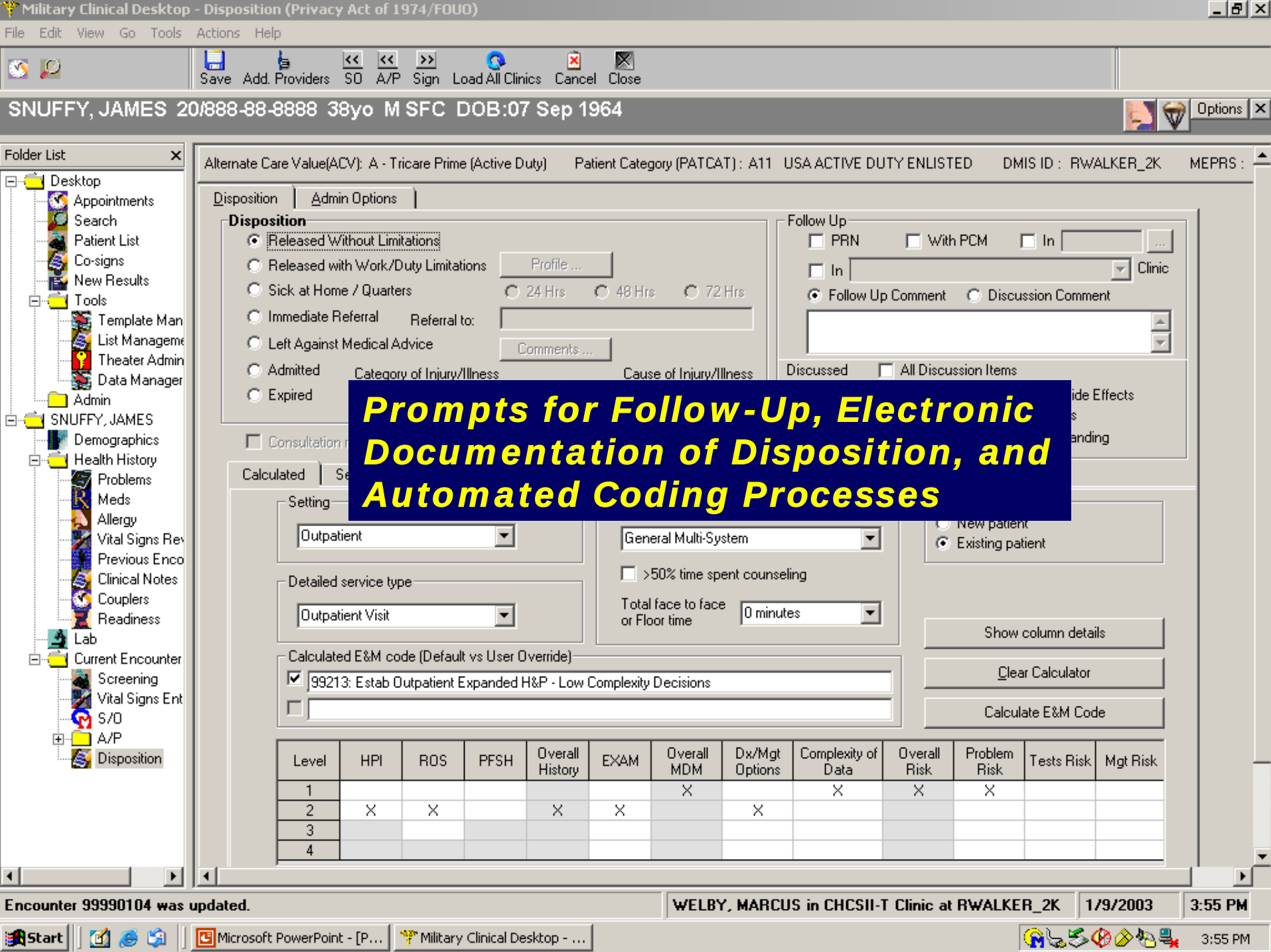


e-Prescribing / e-Ordering

- Legible prescriptions & lab & radiology orders
- Automatic, real-time medication checks
- DoD and civilian prescriptions
- Medications & results visible at any facility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Disposition
Alternate Care Value(ACV): A - Tricare Prime (Active Duty)
Patient Category (PATCAT) : A11 USA ACTIVE DUTY ENLISTED
DMIS ID : RWALKER_2K
MEPRS :
Disposition
Admin Options
Disposition
Released Without Limitations
Released with Work/Duty Limitations
Profile ...
Sick at Home / Quarters
24 Hrs
48 Hrs
72 Hrs
Immediate Referral
Referral to:
Left Against Medical Advice
Comments ...
Admitted
Category of Injury/Illness
Cause of Injury/Illness
Expired
Follow Up
PRN
With PCM
In
In
Clinic
Follow Up Comment
Discussion Comment
Discussed
All Discussion Items
Prompts for Follow-Up, Electronic Documentation of Disposition, and Automated Coding Processes
Calculated
Setting
Outpatient
General Multi-System
New patient
Existing patient
Detailed service type
Outpatient Visit
>50% time spent counseling
Total face to face or Floor time
0 minutes
Show column details
Clear Calculator
Calculate E&M Code
Calculated E&M code (Default vs User Override)
99213: Estab Outpatient Expanded H&P - Low Complexity Decisions
Level HPI ROS PFSH Overall History EXAM Overall MDM Dx/Mgt Options Complexity of Data Overall Risk Problem Risk Tests Risk Mgt Risk
1
2
3
4
Encounter 99990104 was updated.
WELBY, MARCUS in CHCSII-T Clinic at RWALKER_2K
1/9/2003
3:55 PM
Start
Microsoft PowerPoint - [P...
Military Clinical Desktop - ...
3:55 PM

Longitudinal Health Record

Folder List

- Desktop
  - Alert Review
  - Appointments
  - Telephone Consults
  - Search
  - Patient List
  - Consult Log
  - Co-signs
  - Sign Orders
  - New Results
  - Reports
  - Tools
  - Web Browser
  - CHCS-I
- POTTER, HAROLD
  - Demographics
  - Health History
    - Problems
    - Meds
    - Allergy
    - Wellness
    - Vital Signs Revie
    - Couplers
    - Readiness
    - Patient Question
  - Lab
  - Radiology
  - Clinical Notes
  - Previous Encounters
  - Flowsheets
  - Current Encounter
    - Screening
    - Vital Signs Entry
    - S/O
    - A/P
    - Disposition

Previous Encounters

Date	Status	Primary Diagnosis	Clinic
15 Jan 2003 1041	Updated	ALLERGIC RHINIT	t Med

Access to Previous Encounter Information

Signed Encounter Documents: 21 Jan 2003 1157 signed by INAE, ANTHONY M. (2 documents found)

Patient: **POTTER, HAROLD**	Date: **15 Jan 2003 1041 EST**	Appt Type: **WI**
Facility: **NMC Portsmouth**	Clinic: **MTF NMCP Int Med**	Provider: **INAE, ANTHONY M.**

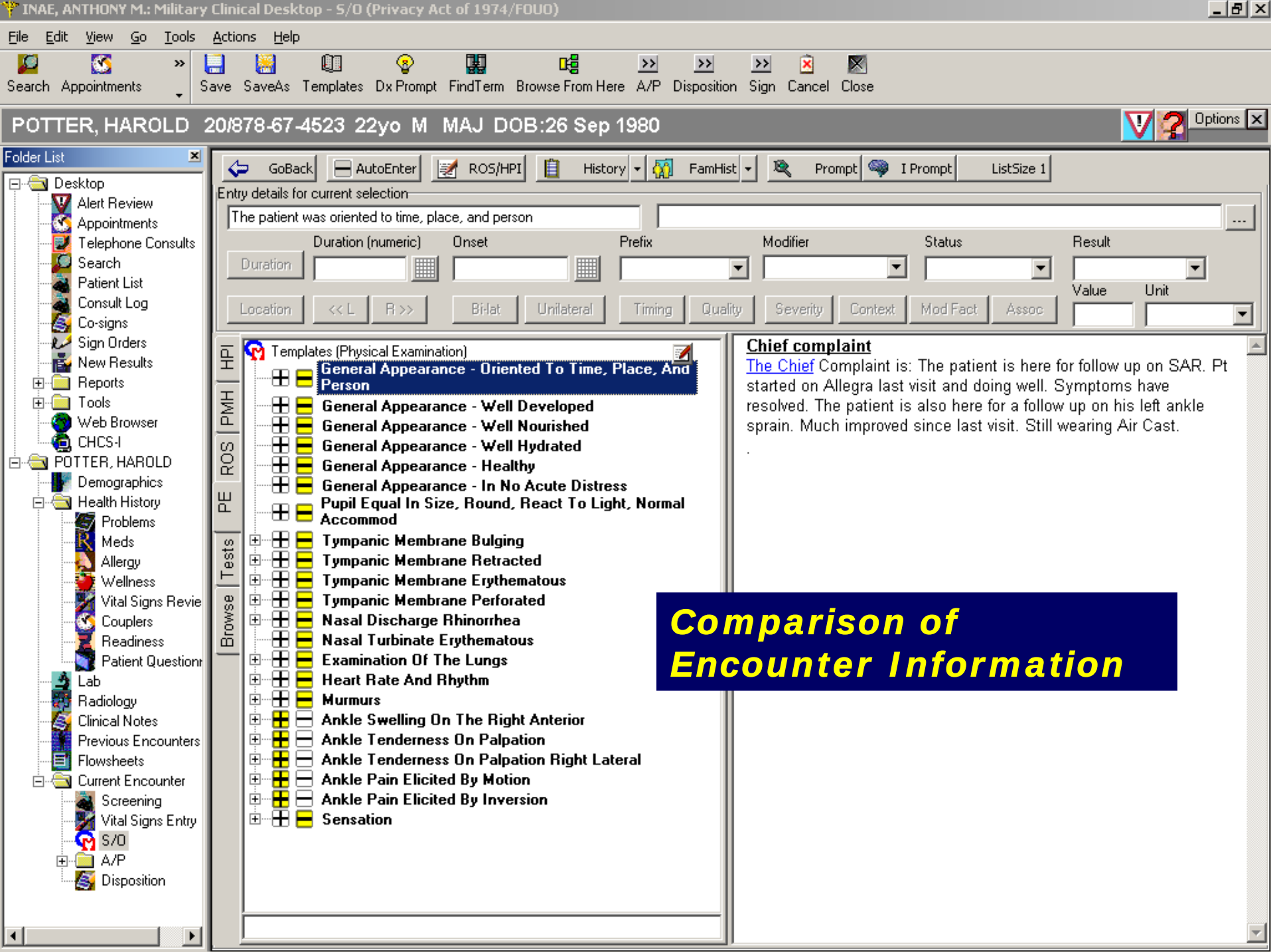
Reason for Appointment:
Medication Refills and followup on ankle injury
Appointment Comments:

AutoCites Refreshed by INAE, ANTHONY M. @ 15 Jan 2003 1043 EST
Vitals
Vitals Written by INAE, ANTHONY M. @ 15 Jan 2003 1043 EST
BP: 120/80, HR: 80, RR: 20, T: 98 °F, HT: 5' 5", WT: 120 lbs, BMI: 19.97, BSA: 1.592 square meters

SO Note Written by INAE, ANTHONY M. @ 21 Jan 2003 1155 EST
Chief complaint
The Chief Complaint is: The patient is here for evaluation of allergy symptom s and is here for a followup on his left ankle sprain. Still hurting.
History of present illness
The Patient is a 22 year old male.
- A watery nasal discharge, down the throat from above, and sneezing.

Past medical/surgical history
Diagnosis History:
Allergic rhinitis.
No asthma
Previous therapy
- History of antihistamines

Review of systems
Head symptoms: No headache.
Otolaryngeal symptoms: No sore throat and not constantly clearing the throat.
Pulmonary symptoms: No cough and not coughing up sputum. No wheezing.
Gastrointestinal symptoms: No nausea and no vomiting.
Physical findings


INAE, ANTHONY M.: Military Clinical Desktop - S/O (Privacy Act of 1974/FOUO)
File Edit View Go Tools Actions Help
Search Appointments Save SaveAs Templates Dx Prompt FindTerm Browse From Here A/P Disposition Sign Cancel Close
POTTER, HAROLD 20/878-67-4523 22yo M MAJ DOB:26 Sep 1980
Options
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Alert Review
Appointments
Telephone Consults
Search
Patient List
Consult Log
Co-signs
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Demographics
Health History
Problems
Meds
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Radiology
Clinical Notes
Previous Encounters
Flowsheets
Current Encounter
Screening
Vital Signs Entry
S/O
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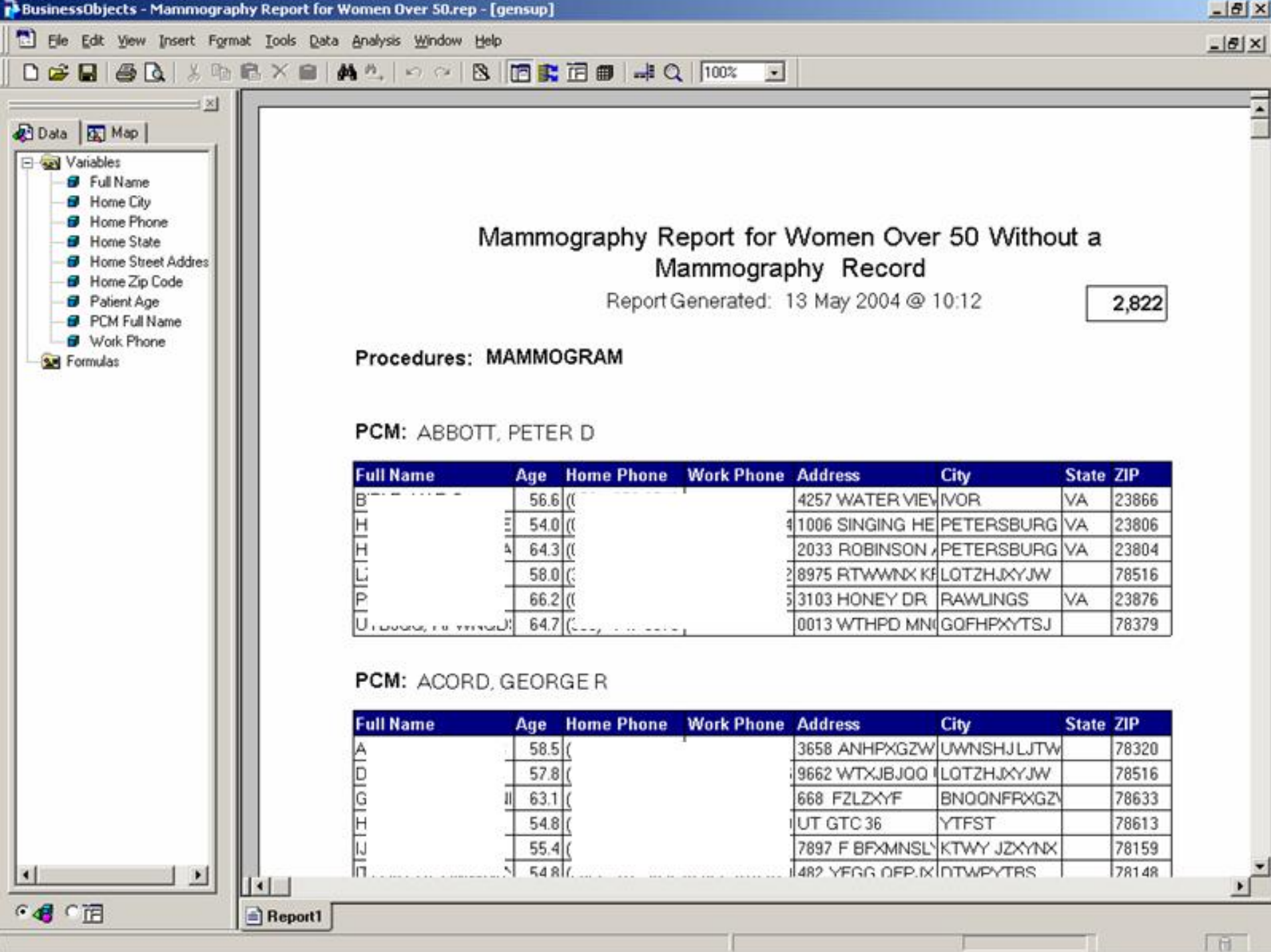
Disposition
GoBack AutoEnter ROS/HPI History FamHist Prompt I Prompt ListSize 1
Entry details for current selection
The patient was oriented to time, place, and person
Duration (numeric) Onset Prefix Modifier Status Result
Duration
Location << L R >> Bi-lat Unilateral Timing Quality Severity Context Mod Fact Assoc
Value Unit
HPI PMH ROS PE Tests Browse
Templates (Physical Examination)
General Appearance - Oriented To Time, Place, And Person
General Appearance - Well Developed
General Appearance - Well Nourished
General Appearance - Well Hydrated
General Appearance - Healthy
General Appearance - In No Acute Distress
Pupil Equal In Size, Round, React To Light, Normal Accommod
Tympanic Membrane Bulging
Tympanic Membrane Retracted
Tympanic Membrane Erythematous
Tympanic Membrane Perforated
Nasal Discharge Rhinorrhea
Nasal Turbinate Erythematous
Examination Of The Lungs
Heart Rate And Rhythm
Murmurs
Ankle Swelling On The Right Anterior
Ankle Tenderness On Palpation
Ankle Tenderness On Palpation Right Lateral
Ankle Pain Elicited By Motion
Ankle Pain Elicited By Inversion
Sensation
Chief complaint
The Chief Complaint is: The patient is here for follow up on SAR. Pt started on Allegra last visit and doing well. Symptoms have resolved. The patient is also here for a follow up on his left ankle sprain. Much improved since last visit. Still wearing Air Cast.
Comparison of Encounter Information

Using the Data

CHCS II
Surveillance & Reporting

- Population Health Improvement
- Disease Management
- Medical Surveillance
- Bioterror Surveillance


BusinessObjects - Mammography Report for Women Over 50.rep - [gensup]
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Data
Map
Variables
Full Name
Home City
Home Phone
Home State
Home Street Addres
Home Zip Code
Patient Age
PCM Full Name
Work Phone
Formulas
Mammography Report for Women Over 50 Without a Mammography Record
Report Generated: 13 May 2004 @ 10:12
2,822
Procedures: MAMMOGRAM
PCM: ABBOTT, PETER D
Full Name Age Home Phone Work Phone Address City State ZIP
56.6 4257 WATER VIEW IVOR VA 23866
54.0 1006 SINGING HE PETERSBURG VA 23806
64.3 2033 ROBINSON A PETERSBURG VA 23804
58.0 8975 RTWWNX KF LQTZHJXYJW 78516
66.2 3103 HONEY DR RAWLINGS VA 23876
64.7 0013 WTHPD MN GQFHPXYTSJ 78379
PCM: ACORD, GEORGE R
Full Name Age Home Phone Work Phone Address City State ZIP
58.5 3658 ANHPXGZW UWNSHJLJTW 78320
57.8 9662 WTXJBJQQ LQTZHJXYJW 78516
63.1 668 FZLZXYF BNQQNFRXGZ 78633
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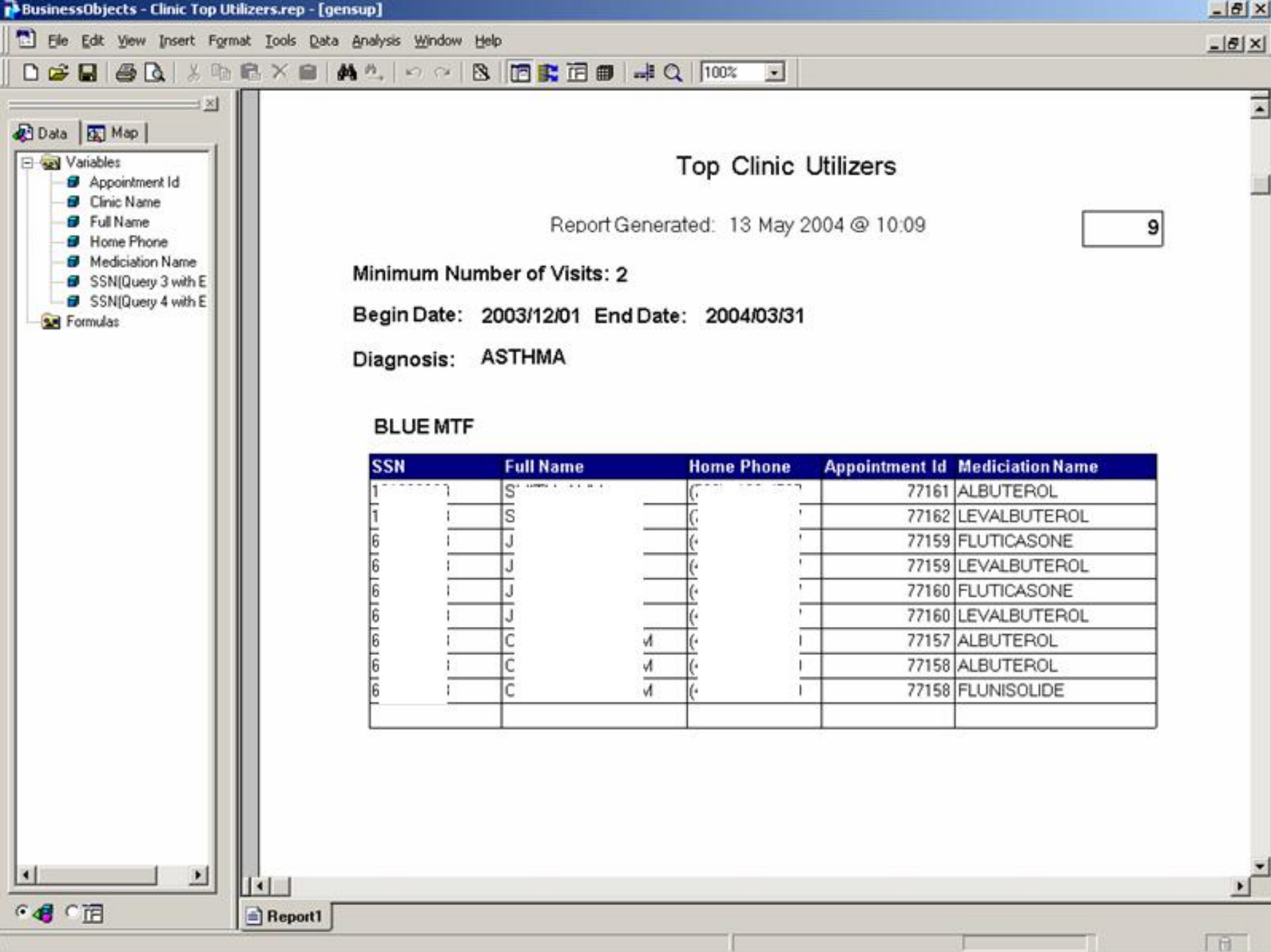
Report1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Data
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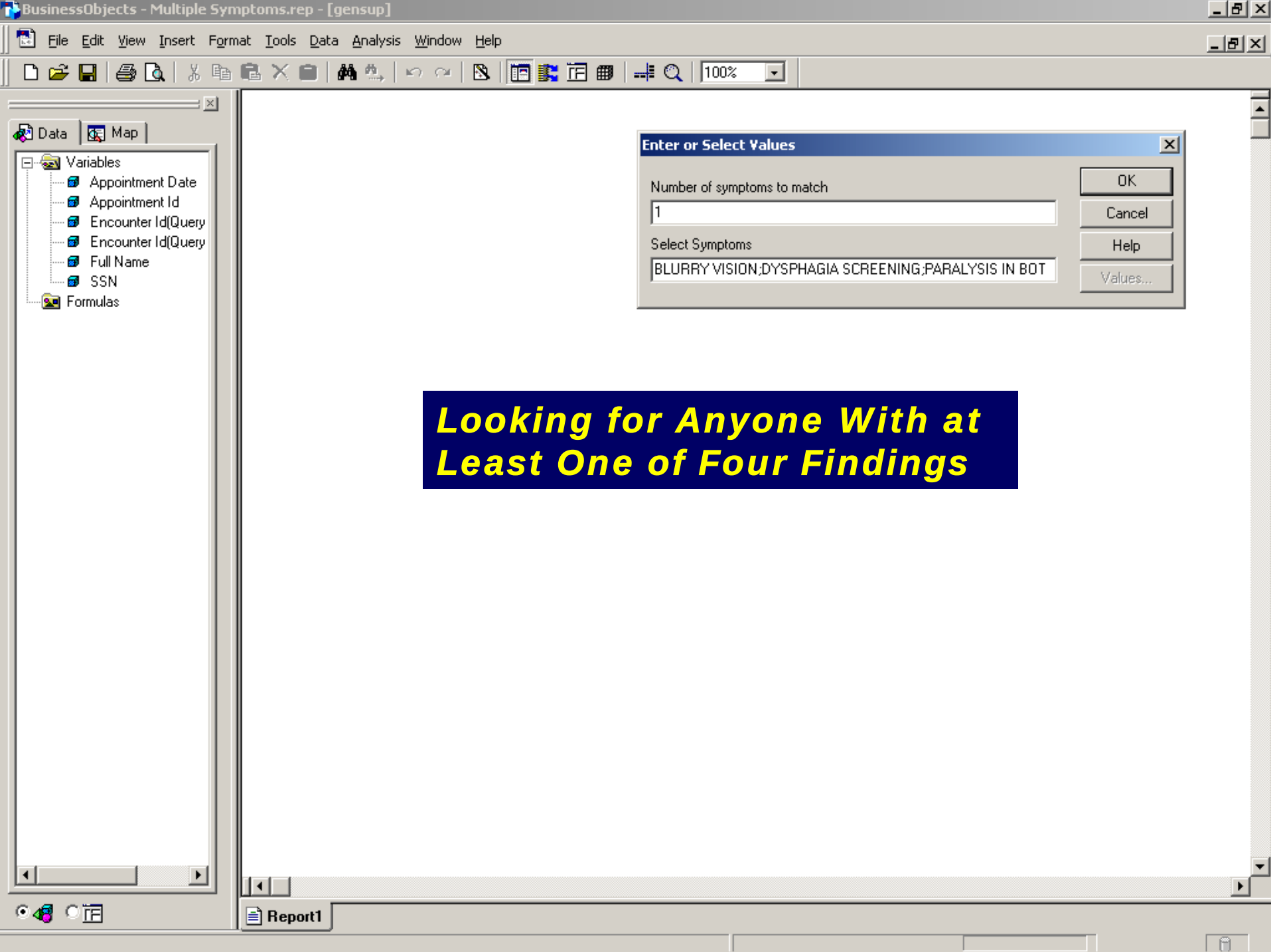
Variables
Appointment Id
Clinic Name
Full Name
Home Phone
Mediciation Name
SSN[Query 3 with E
SSN[Query 4 with E
Formulas
Top Clinic Utilizers
Report Generated: 13 May 2004 @ 10:09
9
Minimum Number of Visits: 2
Begin Date: 2003/12/01 End Date: 2004/03/31
Diagnosis: ASTHMA
BLUE MTF
SSN
Full Name
Home Phone
Appointment Id
Mediciation Name
77161 ALBUTEROL
77162 LEVALBUTEROL
77159 FLUTICASONE
77159 LEVALBUTEROL
77160 FLUTICASONE
77160 LEVALBUTEROL
77157 ALBUTEROL
77158 ALBUTEROL
77158 FLUNISOLIDE
Report1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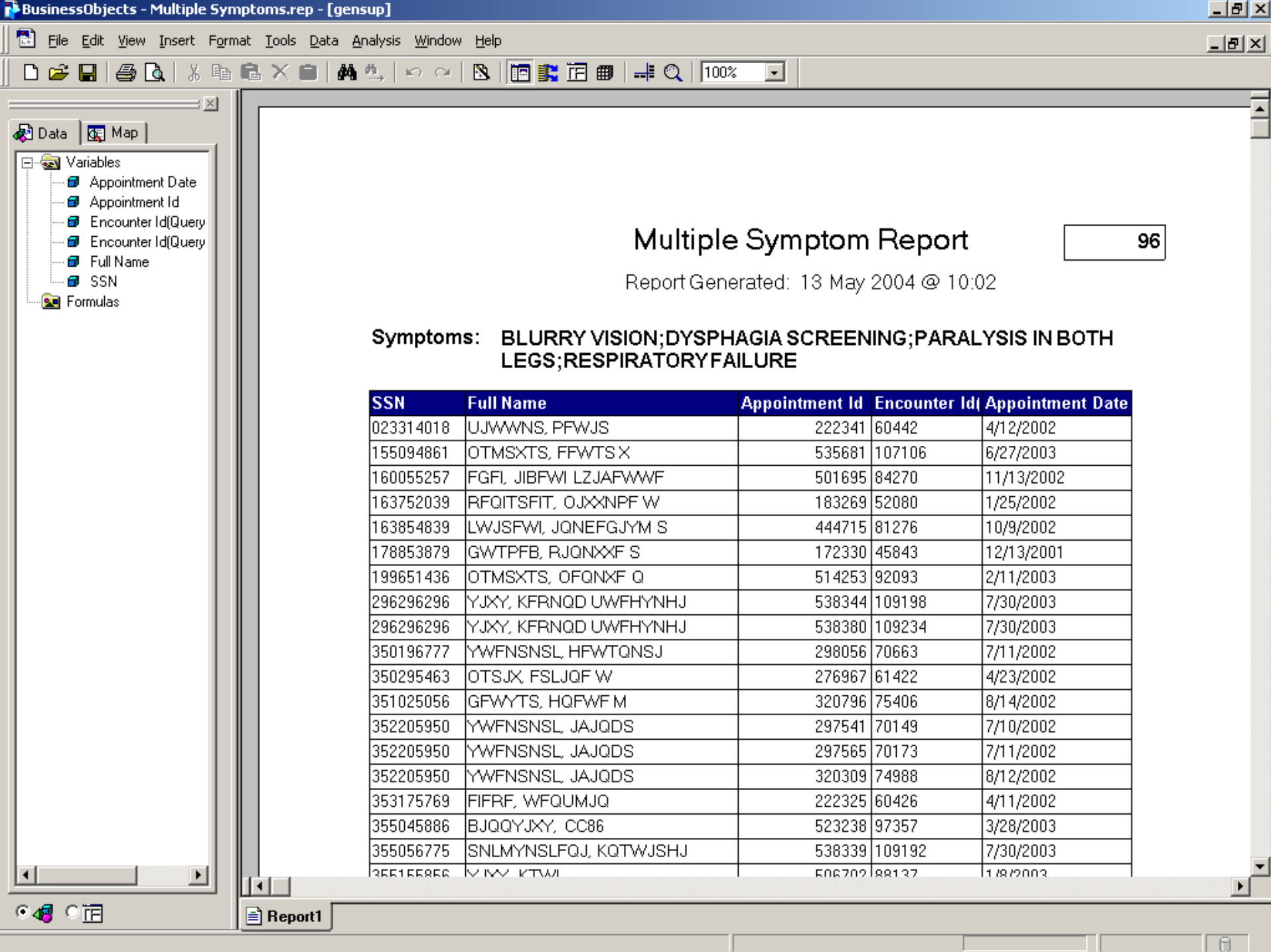
Formulas
Enter or Select Values
Number of symptoms to match
1
Select Symptoms
BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOT
OK
Cancel
Help
Values...
Looking for Anyone With at Least One of Four Findings
Report1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Encounter Id(Query
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SSN
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Multiple Symptom Report
96
Report Generated: 13 May 2004 @ 10:02
Symptoms: BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOTH LEGS;RESPIRATORY FAILURE
SSN | Full Name | Appointment Id | Encounter Id(| Appointment Date
023314018 | UJWWNS, PFWJS | 222341 | 60442 | 4/12/2002
155094861 | OTMSXTS, FFWTS X | 535681 | 107106 | 6/27/2003
160055257 | FGFI, JIBFWI LZJAFWWF | 501695 | 84270 | 11/13/2002
163752039 | RFQITSFIT, OJXXNPF W | 183269 | 52080 | 1/25/2002
163854839 | LWJSFWI, JQNEFGJYM S | 444715 | 81276 | 10/9/2002
178853879 | GWTPFB, RJQNXXF S | 172330 | 45843 | 12/13/2001
199651436 | OTMSXTS, OFQNXF Q | 514253 | 92093 | 2/11/2003
296296296 | YJXY, KFRNQD UWFHYNHJ | 538344 | 109198 | 7/30/2003
296296296 | YJXY, KFRNQD UWFHYNHJ | 538380 | 109234 | 7/30/2003
350196777 | YWFNSNSL, HFWTQNSJ | 298056 | 70663 | 7/11/2002
350295463 | OTSJX, FSLJQF W | 276967 | 61422 | 4/23/2002
351025056 | GFWYTS, HQFWF M | 320796 | 75406 | 8/14/2002
352205950 | YWFNSNSL, JAJQDS | 297541 | 70149 | 7/10/2002
352205950 | YWFNSNSL, JAJQDS | 297565 | 70173 | 7/11/2002
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353175769 | FIFRF, WFQUMJQ | 222325 | 60426 | 4/11/2002
355045886 | BJQQYJXY, CC86 | 523238 | 97357 | 3/28/2003
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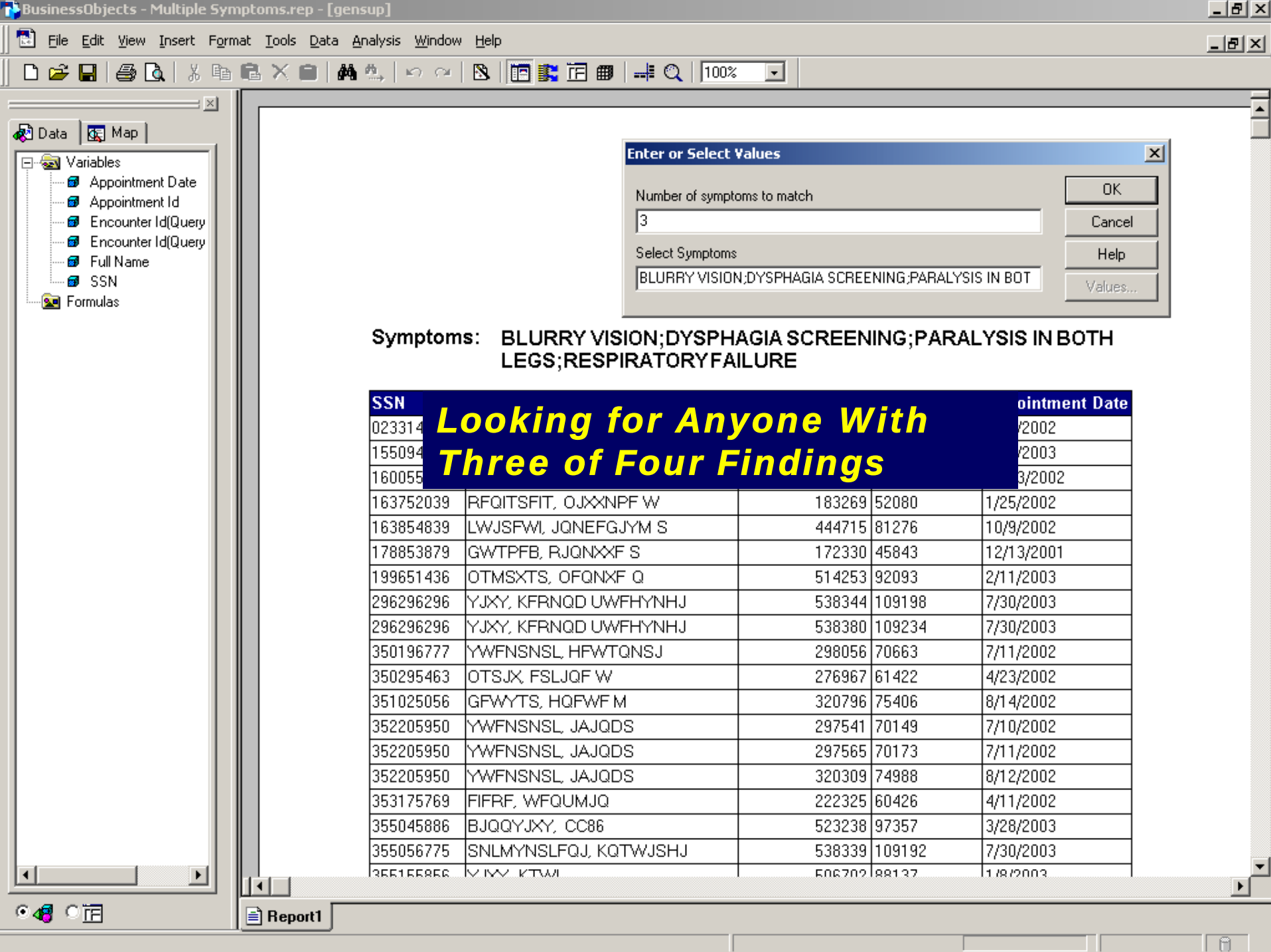
Report1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Enter or Select Values
Number of symptoms to match
3
Select Symptoms
BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOT
OK
Cancel
Help
Values...
Symptoms: BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOTH LEGS;RESPIRATORY FAILURE
Looking for Anyone With Three of Four Findings
SSN
ointment Date
023314
/2002
155094
/2003
160055
3/2002
163752039 RFQITSFIT, OJXXNPF W 183269 52080 1/25/2002
163854839 LWJSFWI, JQNEFGJYM S 444715 81276 10/9/2002
178853879 GWTPFB, RJQNXXF S 172330 45843 12/13/2001
199651436 OTMSXTS, OFQNXF Q 514253 92093 2/11/2003
296296296 YJXY, KFRNQD UWFHYNHJ 538344 109198 7/30/2003
296296296 YJXY, KFRNQD UWFHYNHJ 538380 109234 7/30/2003
350196777 YWFNSNSL, HFWTQNSJ 298056 70663 7/11/2002
350295463 OTSJX, FSLJQF W 276967 61422 4/23/2002
351025056 GFWYTS, HQFWF M 320796 75406 8/14/2002
352205950 YWFNSNSL, JAJQDS 297541 70149 7/10/2002
352205950 YWFNSNSL, JAJQDS 297565 70173 7/11/2002
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353175769 FIFRF, WFQUMJQ 222325 60426 4/11/2002
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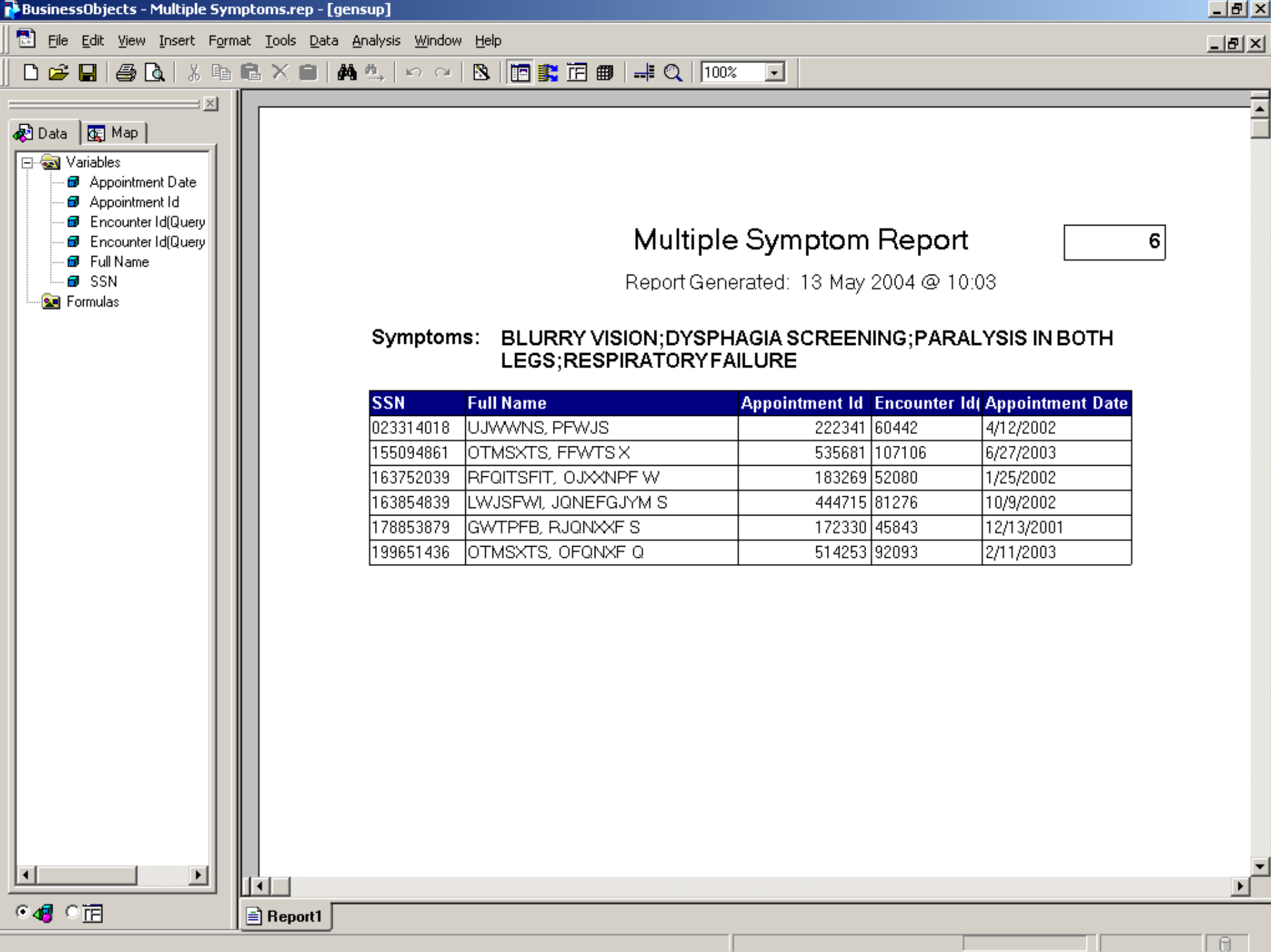
355056775 SNLMYNSLFQJ, KQTWJSHJ 538339 109192 7/30/2003
Report1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Encounter Id(Query
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Multiple Symptom Report
6
Report Generated: 13 May 2004 @ 10:03
Symptoms: BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOTH LEGS;RESPIRATORY FAILURE
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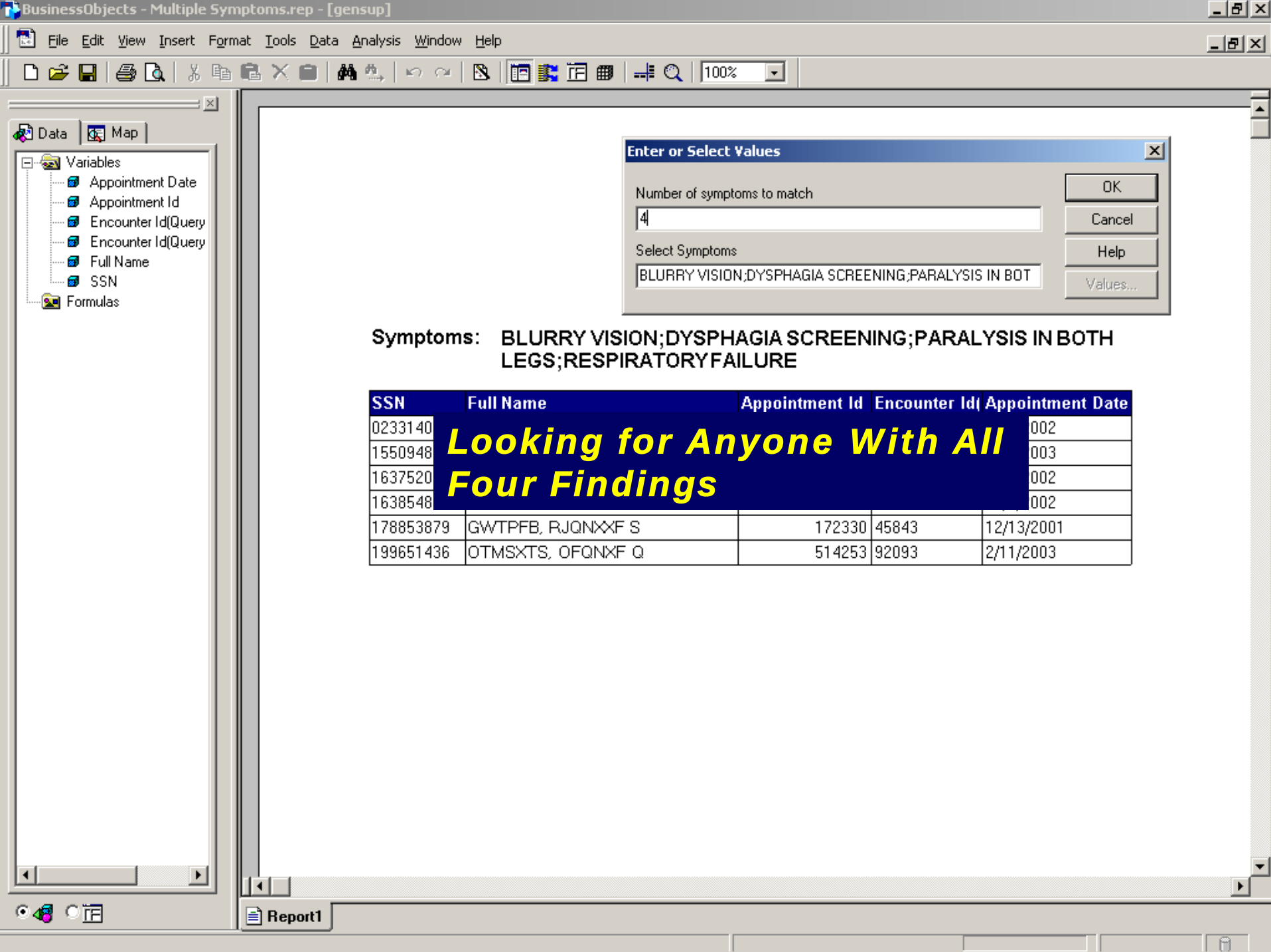
155094861 | OTMSXTS, FFWTS X | 535681 | 107106 | 6/27/2003
163752039 | RFQITSFIT, OJXXNPF W | 183269 | 52080 | 1/25/2002
163854839 | LWJSFWI, JQNEFGJYM S | 444715 | 81276 | 10/9/2002
178853879 | GWTPFB, RJQNXXF S | 172330 | 45843 | 12/13/2001
199651436 | OTMSXTS, OFQNXF Q | 514253 | 92093 | 2/11/2003
Report1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Variables
Appointment Date
Appointment Id
Encounter Id(Query
Encounter Id(Query
Full Name
SSN
Formulas
Enter or Select Values
Number of symptoms to match
4
Select Symptoms
BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOT
OK
Cancel
Help
Values...
Symptoms: BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOTH LEGS;RESPIRATORY FAILURE
SSN
Full Name
Appointment Id
Encounter Id(
Appointment Date
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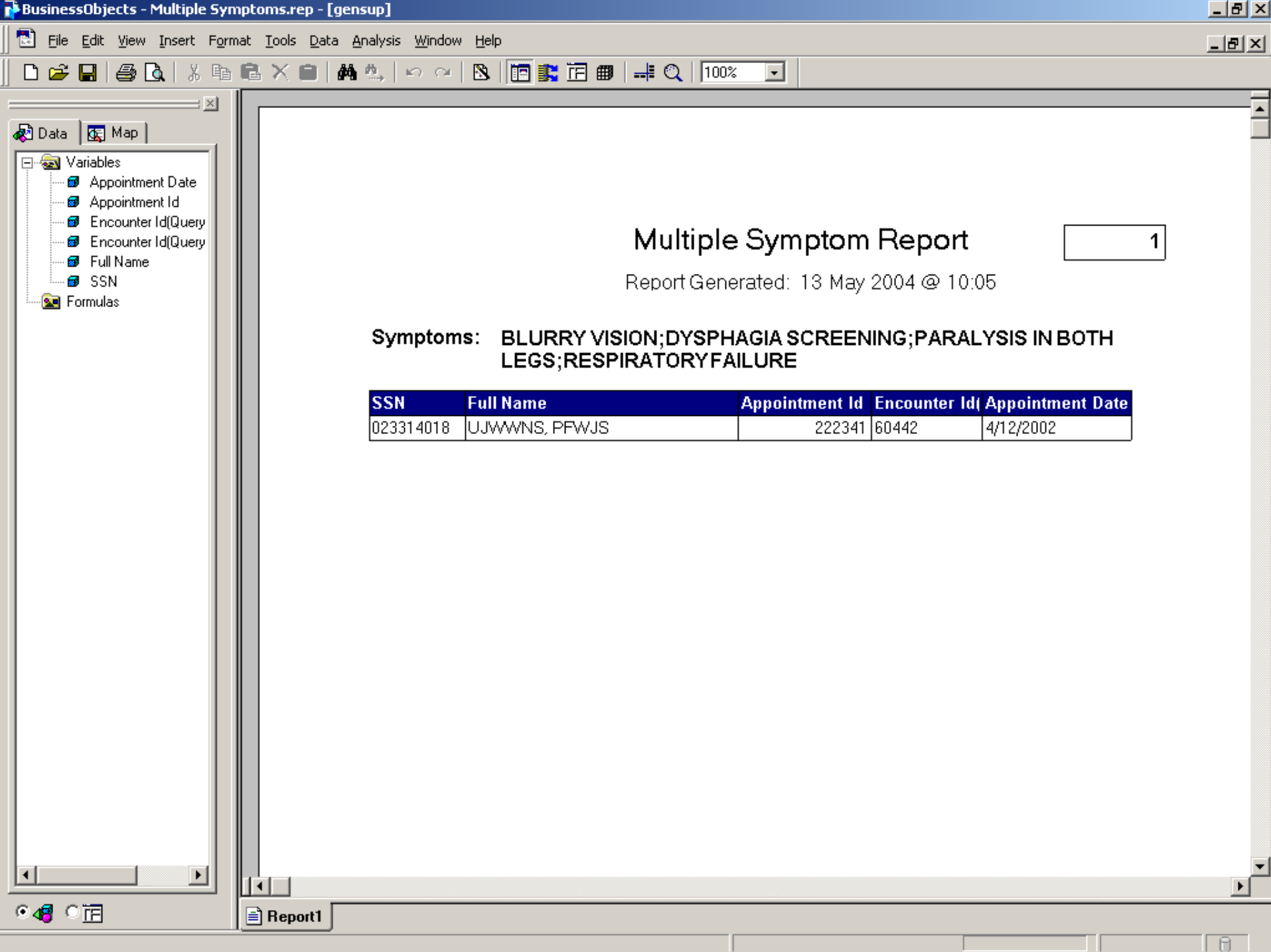
GWTPFB, RJQNXXF S
172330
45843
12/13/2001
199651436
OTMSXTS, OFQNXF Q
514253
92093
2/11/2003
Looking for Anyone With All Four Findings
Report1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File Edit View Insert Format Tools Data Analysis Window Help
100%
Data
Map
Variables
Appointment Date
Appointment Id
Encounter Id(Query
Encounter Id(Query
Full Name
SSN
Formulas
Multiple Symptom Report
1
Report Generated: 13 May 2004 @ 10:05
Symptoms: BLURRY VISION;DYSPHAGIA SCREENING;PARALYSIS IN BOTH LEGS;RESPIRATORY FAILURE
SSN
Full Name
Appointment Id
Encounter Id(
Appointment Date
023314018
UJWWNS, PFWJS
222341
60442
4/12/2002
Report1