Supplementary Material

Figure S1. Medical record extraction form for dermatologic events.

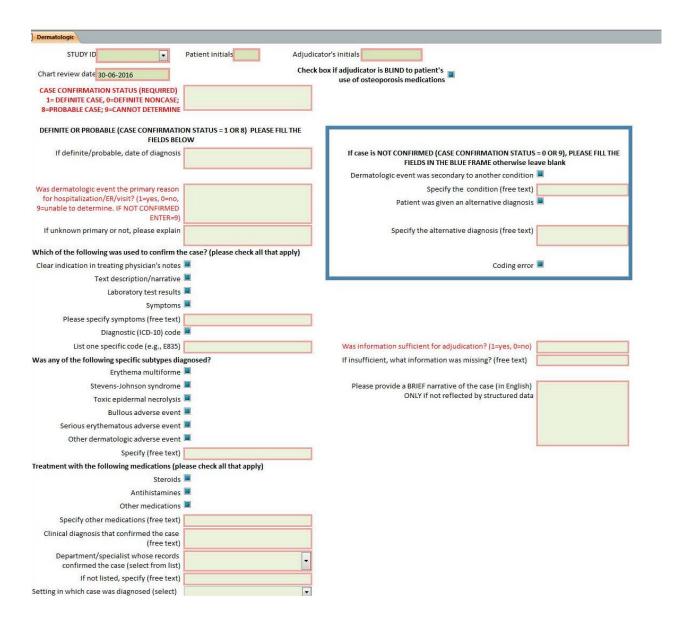


Figure S2. Medical record extraction form for hypersensitivity

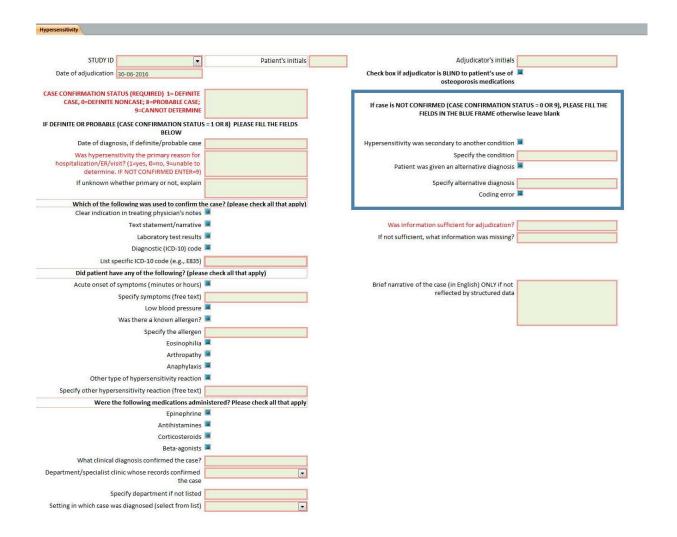


Table S1. Case algorithm for osteoporosis diagnosis

S22.01, S22.11, S32.x1, S42.21, S42.31, S42.41, S42.71,

S42.81

ICD-10 Code	Description
M80, M81, M82	Osteoporosis
Case Algorithm for Osteoporotic Fracture Diagnosis defined	d by any of the following:
Denmark:	
\$72.x*, \$52.x, \$12.0, \$12.1, \$12.2, \$12.7, \$12.9, \$22.0, \$22.1, \$32.x, \$42.2, \$42.3, \$42.4, \$42.7, \$42.8, \$708	Fracture of hip, radius/ulna, spine, pelvis, femur or humerus.
	The supplementary character positions which indicate open fractures are not used in Denmark.
Sweden:	
\$72.x, \$52.x, \$12.0, \$12.1, \$12.2, \$12.7, \$12.9, \$22.0, \$22.1, \$32.x, \$42.2, \$42.3, \$42.4, \$42.7, \$42.8, \$708	Fracture of hip, radius/ulna, spine, pelvis, femur or humerus, excluding open fractures whenever possible
Excluding	
\$72.x1, \$52.01, \$52.11, \$52.21, \$52.31, \$52.41, \$52.71, \$52.81, \$52.91, \$12.01, \$12.11, \$12.21, \$12.71, \$12.91,	

Note: One of the above codes for osteoporotic fracture diagnosis AND no concurrent major trauma NOMESCO codes (for Denmark) or ICD-10 trauma codes (Sweden)

NOMESCO codes (Denmark)	Descriptions	
EUP2-EUP9	Mode of transport: bicycle, moped, motorcycle, motor scooter,	
EUM2-EUM9	passenger car, van, pickup truck, lorry, truck, bus, other specified and unspecified	
EUHE01-EUHE09	Falls, all other than falls on the same level	
AUHG02, EUHB, EUHC, EUHD	Other accidents: Contact or collision with animal; collapse, breakage and deformation of material; malfunction and loss of control of machinery, equipment and materials; malfunction and loss of control of transport vehicle machinery	
ICD-10 codes (Sweden)	Descriptions	
V01-V99	Transport accidents	
W02, W04-W17, W19	Falls, all other than falls on the same levels	

W20-W49 Accidents due to exposure to inanimate mechanical forces

W50-W64 Accidents due to exposure to animate mechanical forces

Case Algorithm for Osteoporosis Medications:

ATC Code ATC Description

M05BA, M05BB Bisphosphonate prescription

G03XC01 Raloxifene

M05BX01 Ipriflavone

M05BX03 Strontium ranelate

M05BX04 Denosumab

H05AA Teriparatide or parathyroid hormone

H05BA Calcitonin

Treatment Code (DK only) Description

BWHB40, BWHB40A Treatment with bisphosphonates in hospital

Note: ^a x indicates any digit from 0 - 9 available in the coding system

Table S2. Algorithm for exclusion criteria among postmenopausal osteoporotic women

Diagnosis	Code Type	Codes and Descriptions ^b
Cancer diagnosis (excluding non-melanoma skin cancer) ^a	ICD-10 in the National Registries of Patients	C00xx – C43xx, C45xx – C97xx
Paget's disease	ICD-10 in the National Registries of Patients	M88.xx

Notes: ^aOutpatient or discharge diagnosis; ^b This algorithm includes codes for secondary (metastatic) malignancies.

Table S3. Diagnoses used to identify dermatologic events leading to hospitalization or emergency room visits.

ICD-10 Code	Description	
L10xx	Pemphigus	
L12xx	Pemphigoid	
L13xx	Other bullous disorders	
L14xx	Bullous disorders in diseases classified elsewhere	
L50xx	Urticaria	
L511x	Bullous erythema multiforme	
L512x	Toxic epidermal necrolysis [Lyell]	
L518x	Other erythema multiforme	
L519x	Erythema multiforme, unspecified	
L538x	Other specified erythematous condition	
R21xx	Rash and other nonspecific skin eruption	
Bullous events		
L10xx	Pemphigus	
L12xx	Pemphigoid	
L13xx	Other bullous disorders	
L14xx	Bullous disorders in diseases classified elsewhere	
Erythematous events		
L511x	Bullous erythema multiforme	
L512x	Toxic epidermal necrolysis [Lyell]	
L518x	Other erythema multiforme	
L519x	Erythema multiforme, unspecified	
L538x	Other specified erythematous condition	
Other dermatologic events		
L50xx	Urticaria	
R21xx	Rash and other nonspecific skin eruption	

Table S4. Diagnoses used to identify hypersensitivity leading to hospitalization or emergency room visits.

ICD-10 Code	Description	
D721x	Eosinophilia (Eosinophilia: allergic, hereditary)	
M364x	Arthropathy in hypersensitivity reactions classified elsewhere	
M022x	Postimmunization arthropathy	
T782x	Anaphylactic shock, unspecified	
T886x	Anaphylactic shock due to adverse effect of correct drug or medicament properly administered	
T887x	Unspecified adverse effect of drug or medicament	
T784x	Allergy, unspecified	
Anaphylaxis Diagnosis Codes		
T886x	Anaphylactic shock due to adverse effect of correct drug or medicament properly administered	
T782x	Anaphylactic shock, unspecified	
Other hypersensitivity events		
D721x	Eosinophilia (Eosinophilia: allergic, hereditary)	
M364x	Arthropathy in hypersensitivity reactions classified elsewhere	
M022x	Postimmunization arthropathy	
T887x	Unspecified adverse effect of drug or medicament	
T784x	Allergy, unspecified	