

INTRODUCTION

Non melanoma skin cancer (NMSCs) are the most common group of cancers⁽¹⁾, accounting for roughly 20% of all new malignancies. The two major types of NMSC are basal cell carcinoma (BCC) and squamous cell carcinoma (SCC).

SCC and BCC are associated with a low mortality and while the majority of cases are managed as day-cases or out-patients, others are admitted to hospitals as in-patients for management of extensive or invasive disease and reconstruction

A high percentage of NMSC present on the Head & Neck and are often considered at high risk of recurring⁽²⁾. Little is known regarding the day-case and in-patient management of NMSC patients.

We used in-patient Cancer Hospital Episode Statistics (HES) data to assess the age distribution, days spent in hospital, specialties involved and types of procedures undertaken for the management of NMSC in England.

METHODS

In-patients cancer HES data were used to extract NMSC (ICD code C44) with an admission date in 2010. Day-cases and in-patients cases were analysed. Spell duration was used to assess the average duration for stay as well as identifying day-cases and in-patients cases. Admissions were counted using the last episode of the spell.

Primary OPCS codes (classification of surgical operations and procedures) were used for skin procedures (code prefix S) as well as other anatomical sites with skin related procedures such as nose, lip, ear, eyebrow and lid (code prefix E,C,D,F,H,P,N). First and second procedures (oper_1 and oper_2) were considered^(3,4). All episodes were included to analyse the procedures undertaken.

The main specialty HES data item was used to define the specialties involved.

The geographic distribution of the cohort was restricted to English cancer networks and based on patient residence.

RESULTS

- The number of admissions with a C44 diagnosis as the first diagnosis was 102,445
- The total number of patients with a valid NHS number was 84,470
- Some patients might have more than one admission and this could be for a different tumour
- They were 96,240 day-case and 6,205 in-patient admissions
- The average duration of in-patient stay for NMSC by cancer network is 4.3 days (3.6 to 6.1)

Age profile at admission

Table 1: Proportion of cases in each age group of day-case and in-patient cohort by gender

Admission type	Age groups (%)				Total
	Under 40	40 to 59	60 to 79	80 and above	
Male day-case	1.2	10.5	53.3	35.0	100
Female day-case	2.2	14.9	46.7	36.2	100
Male in-patient	1.8	9.2	43.9	45.1	100
Female in-patient	2.0	10.1	34.5	53.4	100

- There was a higher proportion of male age group 60 to 79 year old admitted as day-cases than female but there were higher proportions of younger females admitted as day-case than males.
- While a higher proportion of male age 60 to 79 year old were also admitted as in-patients there was a higher proportion of 80 and above females

First skin procedure codes by gender

Table 2: Total episodes of the first primary procedure code type based on the first procedure for day-case by gender

Primary procedure code type	Gender		
	Male	Female	Total
Skin (code prefix S)	35,988	25,531	61,519
Nose (code prefix E)	6,298	5,856	12,154
Eyebrow and lid (code prefix C)	4,530	4,789	9,319
Ear (code prefix D)	6,410	760	7,170
Lip (code prefix F)	822	1,062	1,884
Anus (code prefix H)	42	53	95
Orbit (code prefix C)	26	9	35
Other (Vulva (code prefix P), Rectum (code prefix H), Penis (code prefix N), Scrotum (code prefix N))	9	20	29
Total	54,125	38,080	92,205

- Males had 12% of ear related procedures against 1.9% amongst females while they had a higher proportion of procedures for sites such as nose, eyebrow and lid and lip

Specialties involved in care

Table 3: Overall percentage of procedures undertaken as first procedures for day-case by specialties

	First procedure (%) ('skin' procedures alone prefix S) ¹	First procedure (%) (other skin prefix: E,C,D,F,H,P,N) ¹
Dermatology	50	29.6
Plastic surgery	34.7	34.9
Ophthalmology	-	15.8
Oral surgery	5	7.1
Oral & maxillofacial surgery	4.5	5.2
General surgery	2.7	0.7
ENT	2.1	6.1
Others	1.1	0.4

Figure 1: Percentage of specialties involved in day-case NMSC management by cancer network based on primary codes (OPCS) specific for skin procedures (code prefix S)

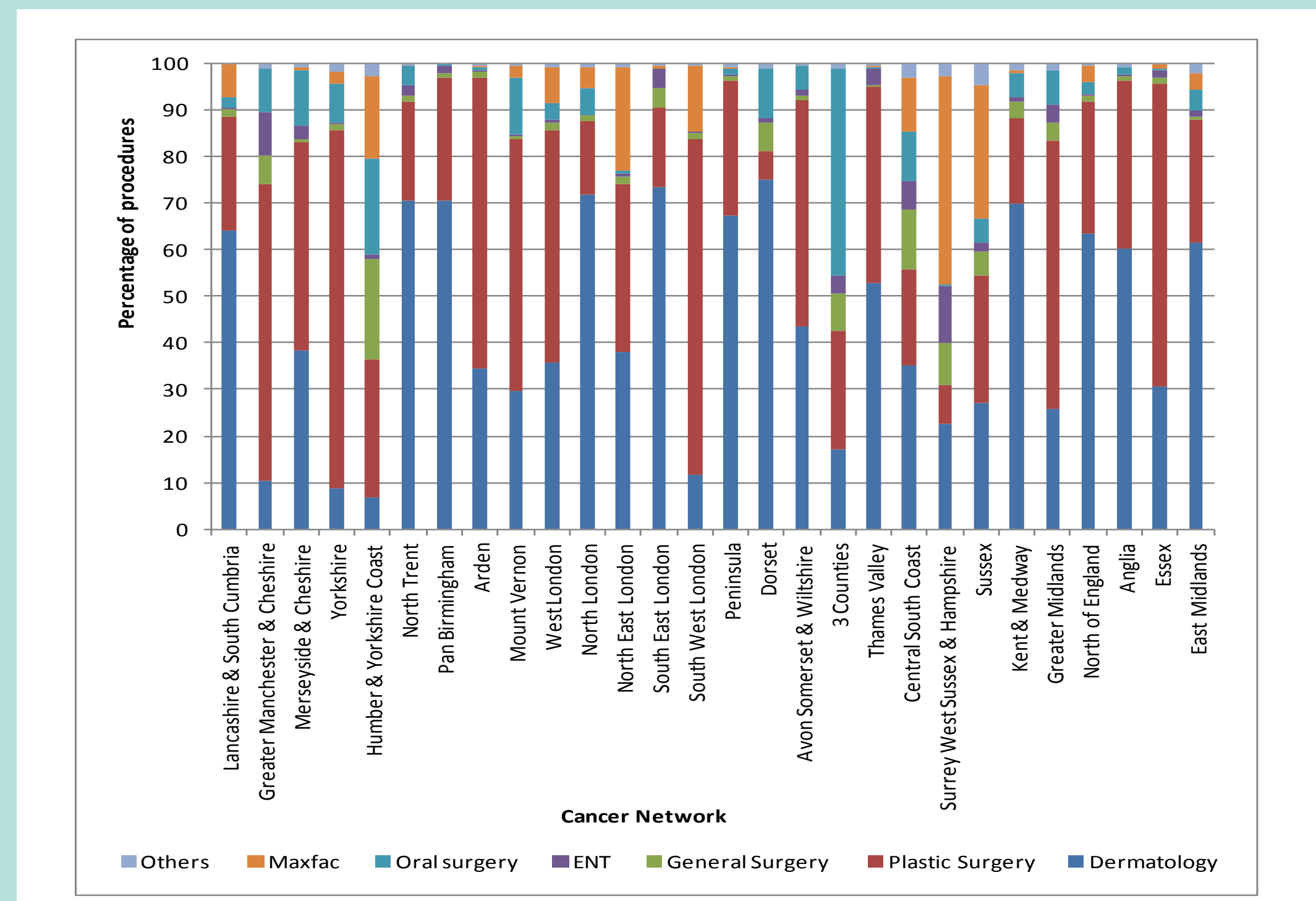


Table 5: Details of first procedures with a primary code specific for skin procedures (code prefix S) for day-case

Procedure type	Number of episodes				Total
	Dermatology	Plastic Surgery	Other specialties (1)	Other specialties (2)	
Other excision of lesion of skin	23,106	19,640	7,947	515	5,1208
Punch biopsy of skin	2,800	287	277	32	3,396
Curettage of lesion of skin	1,935	35	15	21	2,006
Other biopsy of skin	604	350	133	24	1,111
Microscopically controlled excision of lesion of skin	925	11	8	9	953
Photodynamic therapy of skin	920	5	14	8	947
Other autograft of skin	57	373	86	13	529
Others	173	142	110	52	477
Other local flap of skin	74	233	129	11	447
Split autograft of skin	8	255	8	2	273
Shave biopsy of skin	158	12	5	0	175
Total	30,760	21,343	8,732	687	61,522

(Other specialties (1) included oral & maxillofacial surgery, oral surgery, general surgery and ENT and other specialties (2) included secondary care specialties without special skin interest)

Second procedure types

Table 6: Number of episodes with a mention of a skin (code prefix S) procedure as second procedure having had a skin or a related skin (code prefix: E,C,D,F,H,P,N) as a first procedure for day-cases

Second skin procedure (code prefix S)	First procedure (skin, or skin related)						Total
	Skin procedure	Nose procedure	Eyebrow and lid procedure	Ear procedure	Lip procedure	Other procedure	
Other local flap of skin	3,875	1,803	479	489	141	0	6,787
Other autograft of skin	2,838	1,593	299	449	31	0	5,210
Other excision of lesion of skin	476	876	341	379	173	0	2,245
Split autograft of skin	1,993	36	7	17	2	0	2,055
Microscopically controlled excision of lesion of skin	50	1,060	591	175	108	0	1,984
Others (inc additional flap and graft procedures)	956	506	264	123	58	1	1,908
Punch biopsy of skin	153	912	331	278	103	3	1,780
Curettage of lesion of skin	254	343	43	126	29	1	796
Flap operation to relax contracture of skin	122	12	23	7	8	1	173
Total	10,717	7,141	2,378	2,043	653	6	22,938

•The majority of skin procedures undertaken (code prefix S) as second procedures were repair procedures moreover when selecting for a diagnosis of ICD10 codes C440, C441, C442 and C443 – all head and neck anatomical sites – 13,140 procedures were identified as flaps or grafts

DISCUSSION

•While NMSC are often considered as cancer of the elderly at least 10% of cases were in the age group 40 to 59 years old and around 2% were in the below 40 age group. A larger proportion of older females were seen as in-patients. This may be related to more advanced cancer and complex repair

•Specialties involved in the first procedure either for skin or other skin related procedures were mainly Dermatologists and Plastic Surgeons however involvement from other specialties such as oral surgery might be due to miscoding from the Trusts

•The percentage of excisions undertaken on the head and neck (63% of excisions) mirrors the high frequency of NMSC cases presenting in this anatomical site. In addition there is a very clear gender differences of NMSC presentation on the head and neck with the majority of the ear lesions presenting in the males

•The use of OPSC codes varied with the primary codes for skin procedure (S prefix) being used more often on their own while other skin related primary codes (code prefix: E,C,D,F,H,P,N) are often used with a primary code for skin procedure as a second procedure and more specifically repair procedures

CONCLUSIONS

- There are approximately 100,000 admissions a year for the management of NMSC.
- Dermatologists and Plastic surgeons are the main specialties involved in the management of NMSC
- The observed differences of specialties involved in skin cancer care reflect local expertise and decision. There may also be some inconsistency in Trusts recording

ACKNOWLEDGEMENTS

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REFERENCES

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4. <http://www.hscic.gov.uk/hesdatadictionary> accessed April 2013

Additional data regarding costing of NMSC are available on: Registration of non melanoma skin cancer and cost of care in England (poster 44)