# Cancer of the duodenum (ICD10 C17.0)

In England cancers of the duodenum account for approximately 3% of all cancers arising in the hepatobiliary tract and are equally common in men and women (M to F ratio = 1:1). These cancers occur in the first part of the small intestine and the predominant morphology is adenocarcinoma. Familial adenomatosis polyposis (FAP) is a known risk factor for this cancer.

During the period 1998 to 2003 a total of 1,430 people (727 men and 703 women) were diagnosed with a duodenal cancer in England. This gives age-standardised incidence rates per 100,000 European standard population (ASR(E)) of 0.4 in men and 0.3 in women. The ASR(E) varies across the 28 cancer networks between 0.3 to 0.8 in men and 0.1 to 0.5 in women (Table 1; Figure 1). For women, cancer networks with significantly low incidence compared to the English average are North London, North East London and Kent & Medway (Figure 2).

Capaar patwork of	Males		Females	
residence	Number	ASR(E)	Number	ASR(E)
3 Counties	21	0.6	14	0.3
Anglia	35	0.4	31	0.3
Arden	10	0.3	15	0.4
Avon, Somerset & Wilts	26	0.4	43	0.5
Central South Coast	40	0.5	51	0.5
Derby/ Burton	08	0.3	07	0.2
Dorset	24	0.8	19	0.4
Essex	18	0.4	21	0.3
Greater Midlands	34	0.5	36	0.4
Gtr Manchester & Cheshire	56	0.6	47	0.4
Humber & Yorks Coast	11	0.3	12	0.3
Kent & Medway	18	0.3	08	0.1
Lancs & S Cumbria	29	0.5	31	0.4
Leics, Northants & Rutland	21	0.4	15	0.3
Merseyside & Cheshire	32	0.5	30	0.3
Mid Trent	20	0.3	19	0.3
Mount Vernon	10	0.3	12	0.3
NE London	15	0.4	10	0.1
North London	11	0.3	05	0.1
North of England	43	0.4	49	0.4
North Trent	25	0.4	27	0.4
Pan Birmingham	25	0.4	27	0.4
Peninsula	29	0.5	26	0.3
SE London	12	0.3	14	0.3
Sussex	17	0.4	14	0.3
SW London	25	0.5	15	0.2
SWSH	16	0.4	13	0.3
Thames Valley	30	0.4	21	0.2
West London	25	0.5	17	0.3
Yorkshire CN	41	0.5	54	0.5
England	727	0.4	703	0.3

Table 1: Age-standardised incidence rates per 100,000 European population by cancer network.



Figure 1: Age-standardised incidence rates per 100,000 European population by cancer network.

Figure 2: Funnel plot of age-standardised incidence rates for a) males and b) females by cancer network of residence, England, 1998-2003.



### Liver cancer (ICD10 C22.0, C22.2-C22.9)

In England cancers of the liver account for approximately 14% of all cancers arising in the hepatobiliary tract and are more common in men than in women (M to F ratio = 2.1:1). Primary liver cancers arise in the liver as opposed to secondary cancers which have metastased to the liver from cancers elsewhere in the body. Hepatocellular carcinoma is the predominant morphology. Known risk factors for these cancers are infection with Hepatitis B and Hepatitis C as well as cirrhosis and excessive alcohol consumption.

During the period 1998 to 2003 a total of 8,091 people (5,521 men and 2,570 women) were diagnosed with a liver cancer in England. This gives age-standardised incidence rates per 100,000 European standard population (ASR(E)) of 3.4 in men and 1.2 in women. The ASR(E) varies across the 28 cancer networks between 1.8 to 6.9 in men and 0.6 to 4.9 in women (Table 1; Figure 1). Cancer networks with a significantly low incidence compared to the English average in men and women are Humber & Yorkshire Coast, Leicestershire, Northants & Rutland, Anglia and Thames Valley. Cancer networks with a significantly high incidence in men included areas of London, Pan Birmingham, Merseyside & Cheshire and Greater Manchester & Cheshire. Only the latter two networks had a significantly high incidence in women. Merseyside & Cheshire has a very high incidence in both men and women (Figure 2).

Concer notwork of	Males		Females	
residence	Number	ASR(E)	Number	ASR(E)
3 Counties	84	2.2	47	1.0
Anglia	170	1.8	72	0.6
Arden	84	2.5	32	0.8
Avon, Somerset & Wilts	196	3.1	84	1.0
Central South Coast	235	3.4	131	1.5
Derby/ Burton	57	2.5	32	1.1
Dorset	97	3.1	40	1.2
Essex	118	2.5	50	0.8
Greater Midlands	207	3.2	88	1.0
Gtr Manchester & Cheshire	385	4.0	209	1.6
Humber & Yorks Coast	80	2.1	30	0.6
Kent & Medway	134	2.5	61	0.9
Lancs & S Cumbria	167	3.2	78	1.0
Leics, Northants & Rutland	107	2.0	54	0.8
Merseyside & Cheshire	460	6.9	488	4.9
Mid Trent	163	2.9	70	1.0
Mount Vernon	100	2.5	41	0.8
NE London	176	4.6	67	1.3
North London	214	5.4	59	1.1
North of England	375	3.6	133	0.9
North Trent	175	2.9	61	0.8
Pan Birmingham	257	4.3	95	1.2
Peninsula	165	2.5	79	1.0
SE London	195	4.8	81	1.6
Sussex	131	2.9	50	0.9
SW London	178	4.1	66	1.1
SWSH	101	2.6	46	0.8
Thames Valley	175	2.6	61	0.6
West London	287	6.2	73	1.2
Yorkshire CN	248	3.1	92	0.8
England	5,521	3.4	2,570	1.2

Table 1: Age-standardised incidence rates per 100,000 European population by cancer network.



Figure 1: Age-standardised incidence rates per 100,000 European population by cancer network.

Figure 2: Funnel plot of age-standardised incidence rates for a) males and b) females by cancer network of residence, England, 1998-2003.



# Cancer of the bile duct (ICD10 C22.1, C24.0, C24.8, C24.9)

In England cancers of the bile duct account for approximately 4% of all cancers arising in the hepatobiliary tract and are slightly more common in women than in men (M to F ratio = 0.9:1). They occur in both intrahepatic and extrahepatic bile ducts and the predominant morphology is cholangiocarcinoma. Most patients presenting with a bile duct cancer have no specific risk factors.

During the period 1998 to 2003 a total of 6,881 people (3,221 men and 3,660 women) were diagnosed with a bile duct cancer in England. This gives age-standardised incidence rates per 100,000 European standard population (ASR(E)) of 1.9 in men and 1.5 in women. The ASR(E) varies across the 28 cancer networks between 1.3 to 2.5 in men and 0.9 to 2.1 in women (Table 1; Figure 1). The cancer networks with significantly low incidence compared to the English average in women are Mount Vernon, Sussex and Avon, Somerset & Wiltshire. The cancer networks with significantly high incidence in men are Greater Manchester & Cheshire and in women Lancashire & South Cumbria (Figure 2).

Concernativerk of	Males		Females	
residence	Number	ASR(E)	Number	ASR(E)
3 Counties	57	1.5	72	1.2
Anglia	184	1.8	188	1.4
Arden	55	1.6	69	1.6
Avon, Somerset & Wilts	117	1.7	106	1.1
Central South Coast	126	1.8	149	1.4
Derby/ Burton	47	2.0	51	1.4
Dorset	66	2.1	70	1.7
Essex	82	1.7	88	1.3
Greater Midlands	120	1.8	158	1.7
Gtr Manchester & Cheshire	237	2.4	246	1.8
Humber & Yorks Coast	66	1.7	71	1.4
Kent & Medway	98	1.8	96	1.2
Lancs & S Cumbria	122	2.3	161	2.1
Leics, Northants & Rutland	106	2.0	100	1.5
Merseyside & Cheshire	150	2.2	174	1.8
Mid Trent	139	2.4	140	1.8
Mount Vernon	50	1.3	51	0.9
NE London	82	2.0	84	1.5
North London	78	1.9	89	1.5
North of England	216	2.0	250	1.6
North Trent	104	1.6	168	1.9
Pan Birmingham	107	1.8	149	1.7
Peninsula	130	2.0	158	1.7
SE London	77	1.9	102	1.6
Sussex	104	2.2	83	1.1
SW London	72	1.6	113	1.7
SWSH	65	1.6	63	1.1
Thames Valley	118	1.7	120	1.3
West London	89	1.8	96	1.5
Yorkshire CN	157	1.9	195	1.6
England	3,221	1.9	3,660	1.5

Table 1: Age-standardised incidence rates	oer 100.000 European	population by cancer network.
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Figure 1: Age-standardised incidence rates per 100,000 European population by cancer network.

Figure 2: Funnel plot of age-standardised incidence rates for a) males and b) females by cancer network of residence, England, 1998-2003.



# Gallbladder cancer (ICD10 C23)

In England cancers of the gallbladder account for approximately 4% of all cancers arising in the hepatobiliary tract and are more common in women than in men (M to F ratio = 0.4:1). The predominant morphology is adenocarcinoma. Known risk factors for this cancer are obesity as well as chronic cholecystitis and cholelithiasis.

During the period 1998 to 2003 a total of 2,484 people (728 men and 1,756 women) were diagnosed with a gallbladder cancer in England. This gives age-standardised incidence rates per 100,000 European standard population (ASR(E)) of 0.4 in men and 0.8 in women. The ASR(E) varies across the 28 cancer networks between 0.2 to 0.7 in men and 0.5 to 1.3 in women (Table 1; Figure 1). The cancer networks with significantly high incidence in women compared to the English average are North East and West London (Figure 2).

Cancer network of	Males		Females	
residence	Number	ASR(E)	Number	ASR(E)
3 Counties	16	0.4	33	0.6
Anglia	31	0.3	90	0.7
Arden	15	0.4	31	0.8
Avon, Somerset & Wilts	19	0.3	66	0.7
Central South Coast	32	0.4	72	0.8
Derby/ Burton	17	0.7	37	1.2
Dorset	06	0.2	18	0.4
Essex	13	0.3	32	0.5
Greater Midlands	28	0.4	78	1.0
Gtr Manchester & Cheshire	42	0.4	107	0.8
Humber & Yorks Coast	15	0.4	32	0.6
Kent & Medway	29	0.5	48	0.6
Lancs & S Cumbria	23	0.4	53	0.7
Leics, Northants & Rutland	25	0.5	62	1.0
Merseyside & Cheshire	31	0.5	77	0.8
Mid Trent	29	0.5	61	0.9
Mount Vernon	21	0.5	40	0.8
NE London	20	0.5	61	1.3
North London	19	0.5	31	0.6
North of England	52	0.5	113	0.8
North Trent	36	0.6	79	1.0
Pan Birmingham	38	0.6	75	0.9
Peninsula	24	0.3	63	0.7
SE London	23	0.6	34	0.6
Sussex	24	0.4	51	0.7
SW London	13	0.3	35	0.6
SWSH	11	0.3	33	0.6
Thames Valley	22	0.3	62	0.6
West London	16	0.3	73	1.2
Yorkshire CN	38	0.5	109	1.0
England	728	0.4	1.756	0.8

Table 1: Age-standardised incidence rates per 100,000 European population by cancer network.



Figure 1: Age-standardised incidence rates per 100,000 European population by cancer network.

Figure 2: Funnel plot of age-standardised incidence rates for a) males and b) females by cancer network of residence, England, 1998-2003.



### Ampulla of Vater cancer (ICD10 C24.1)

In England cancers of the ampulla of Vater account for approximately 3% of all cancers arising in the hepatobiliary tract and are slightly more common in men than in women (M to F ratio = 1.1:1). The ampulla of Vater is formed by the union of the common bile duct and the pancreatic duct and is located halfway along the second part of the duodenum. For cancers arising in the ampulla of Vater the predominant morphology is adenocarcinoma. Risk factors are poorly understood though patients with familial adenomatosis polyposis (FAP) appear to be at an increased risk of developing these cancers.

During the period 1998 to 2003 a total of 1,843 people (961 men and 882 women) were diagnosed with an ampulla of Vater cancer in England. This gives age-standardised incidence rates per 100,000 European standard population (ASR(E)) of 0.6 in men and 0.4 in women. The ASR(E) varies across the 28 cancer networks between 0.2 to 0.8 in men and 0.2 to 0.6 in women. (Table 1; Figure 1). The cancer networks with significantly low incidence in men compared to the English average are Essex and Pan Birmingham (Figure 2).

Cappor notwork of Males		les	s Females		
residence	Number	ASR(E)	Number	ASR(E)	
3 Counties	18	0.5	21	0.4	
Anglia	38	0.4	55	0.5	
Arden	14	0.4	13	0.3	
Avon, Somerset & Wilts	31	0.5	38	0.4	
Central South Coast	46	0.7	50	0.6	
Derby/ Burton	11	0.5	10	0.3	
Dorset	15	0.5	21	0.5	
Essex	15	0.3	21	0.3	
Greater Midlands	28	0.4	33	0.4	
Gtr Manchester & Cheshire	77	0.8	47	0.4	
Humber & Yorks Coast	19	0.5	08	0.2	
Kent & Medway	27	0.5	27	0.3	
Lancs & S Cumbria	40	0.7	23	0.3	
Leics, Northants & Rutland	33	0.6	30	0.5	
Merseyside & Cheshire	35	0.5	49	0.5	
Mid Trent	29	0.5	34	0.4	
Mount Vernon	27	0.7	13	0.3	
NE London	17	0.4	17	0.3	
North London	24	0.6	33	0.6	
North of England	81	0.8	68	0.5	
North Trent	47	0.7	34	0.4	
Pan Birmingham	14	0.2	23	0.3	
Peninsula	51	0.8	38	0.4	
SE London	23	0.6	18	0.3	
Sussex	23	0.5	27	0.4	
SW London	15	0.3	21	0.3	
SWSH	23	0.6	18	0.3	
Thames Valley	43	0.6	27	0.3	
West London	38	0.8	17	0.3	
Yorkshire CN	59	0.7	48	0.4	
England	961	0.6	882	0.4	

Table 1: Age-standardised incidence rates per 100,000 European population by cancer network.



Figure 1: Age-standardised incidence rates per 100,000 European population by cancer network.

Figure 2: Funnel plot of age-standardised incidence rates for a) males and b) females by cancer network of residence, England, 1998-2003.



#### Pancreatic cancer (ICD10 C25)

In England cancer of the pancreas account for approximately 63% of all cancers arising in the hepatobiliary tract and are slightly more common in women than in men (M to F ratio = 0.9:1). The majority of these cancers have an unspecified morphology. There are a variety of known risk factors for pancreatic cancer including obesity, smoking, Helicobacter pylori infection, a poor diet (high in red meat and low in vegetables) as well as chronic pancreatitis which can be caused by excessive alcohol consumption.

During the period 1998 to 2003 a total of 35,970 people (17,477 men and 18,493 women) were diagnosed with a pancreatic cancer in England. This gives age-standardised incidence rates per 100,000 European standard population (ASR(E)) of 10.4 in men and 7.8 in women. The ASR(E) varies across the 28 cancer networks between 9.2 to 12.0 in men and 6.8 to 8.7 in women (Table 1; Figure 1). No cancer networks had a significantly higher or lower incidence compared to the English average (Figure 2).

Concer notwork of	Males		Females	
residence	Number	ASR(E)	Number	ASR(E)
3 Counties	455	11.8	370	6.8
Anglia	911	9.5	930	7.2
Arden	308	9.2	345	7.4
Avon, Somerset & Wilts	681	10.2	733	7.7
Central South Coast	698	10.0	788	7.7
Derby/ Burton	240	10.1	238	7.9
Dorset	318	9.9	360	7.5
Essex	509	10.6	560	8.2
Greater Midlands	637	9.6	686	7.7
Gtr Manchester & Cheshire	949	9.8	1,035	7.4
Humber & Yorks Coast	367	9.9	412	7.7
Kent & Medway	612	10.9	632	7.9
Lancs & S Cumbria	522	9.8	545	7.0
Leics, Northants & Rutland	542	10.6	546	8.1
Merseyside & Cheshire	704	10.4	784	7.9
Mid Trent	658	11.5	654	8.7
Mount Vernon	419	10.7	443	8.2
NE London	415	10.2	485	8.7
North London	468	11.3	454	7.8
North of England	1,050	10.1	1,160	8.0
North Trent	691	11.3	713	8.5
Pan Birmingham	666	11.1	656	7.9
Peninsula	688	10.2	724	7.5
SE London	489	12.0	501	8.4
Sussex	500	10.3	555	7.1
SW London	489	11.1	552	8.4
SWSH	408	10.3	429	7.7
Thames Valley	720	10.3	725	7.7
West London	523	10.9	551	8.1
Yorkshire CN	840	10.2	927	7.9
England	17,477	10.4	18,493	7.8

Fable 1: Age-standardised incidence rates p	er 100,000	European pe	opulation by	y cancer network.
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Figure 1: Age-standardised incidence rates per 100,000 European population by cancer network.

Figure 2: Funnel plot of age-standardised incidence rates for a) males and b) females by cancer network of residence, England, 1998-2003.

