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Quality Improvement in NHS Outpatient clinics

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The *Patient's Charter* was published in 1991 and, *inter alia*, stated that:

'you will be given a specific appointment time and be seen within 30 minutes of that time'

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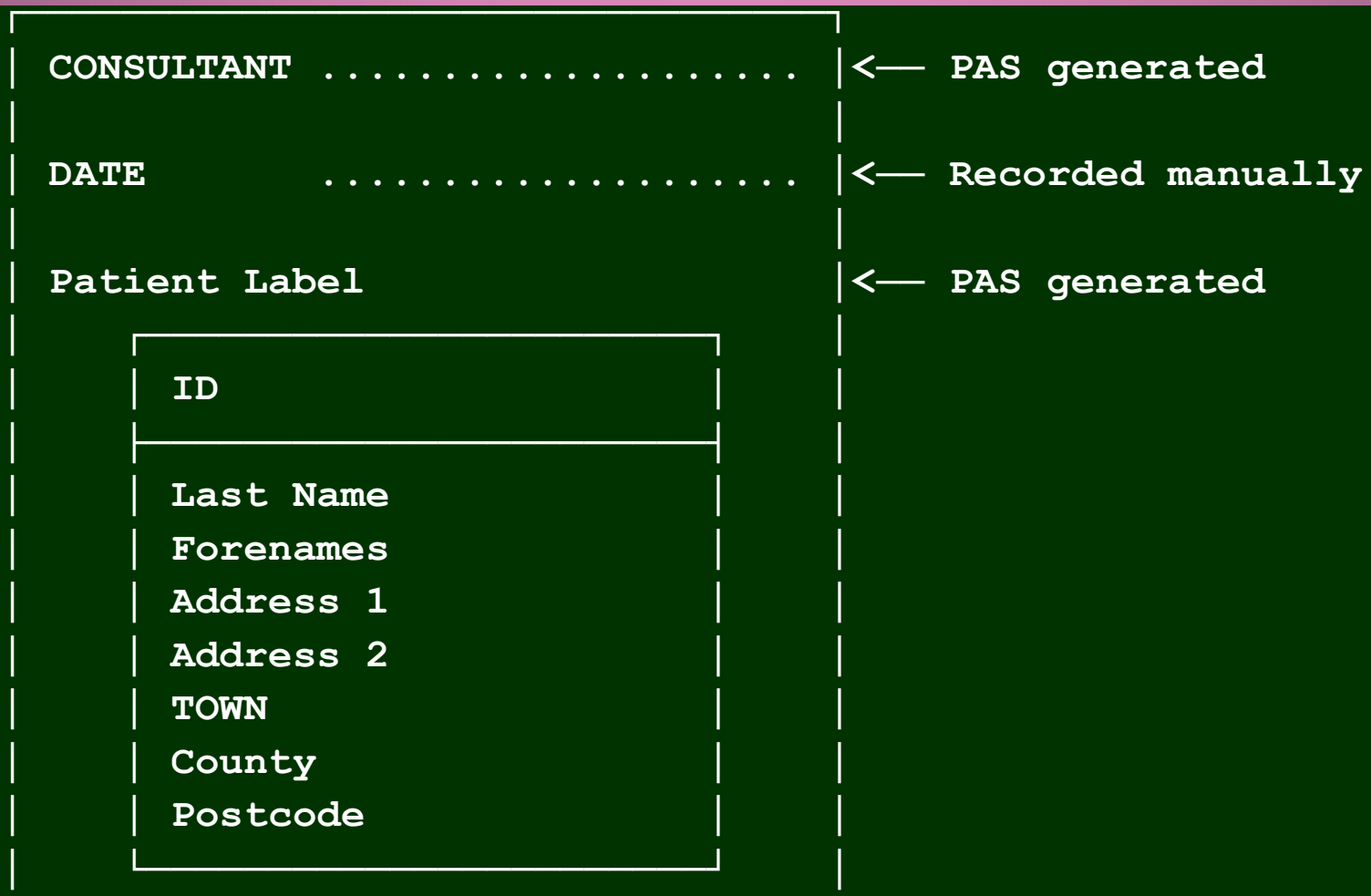

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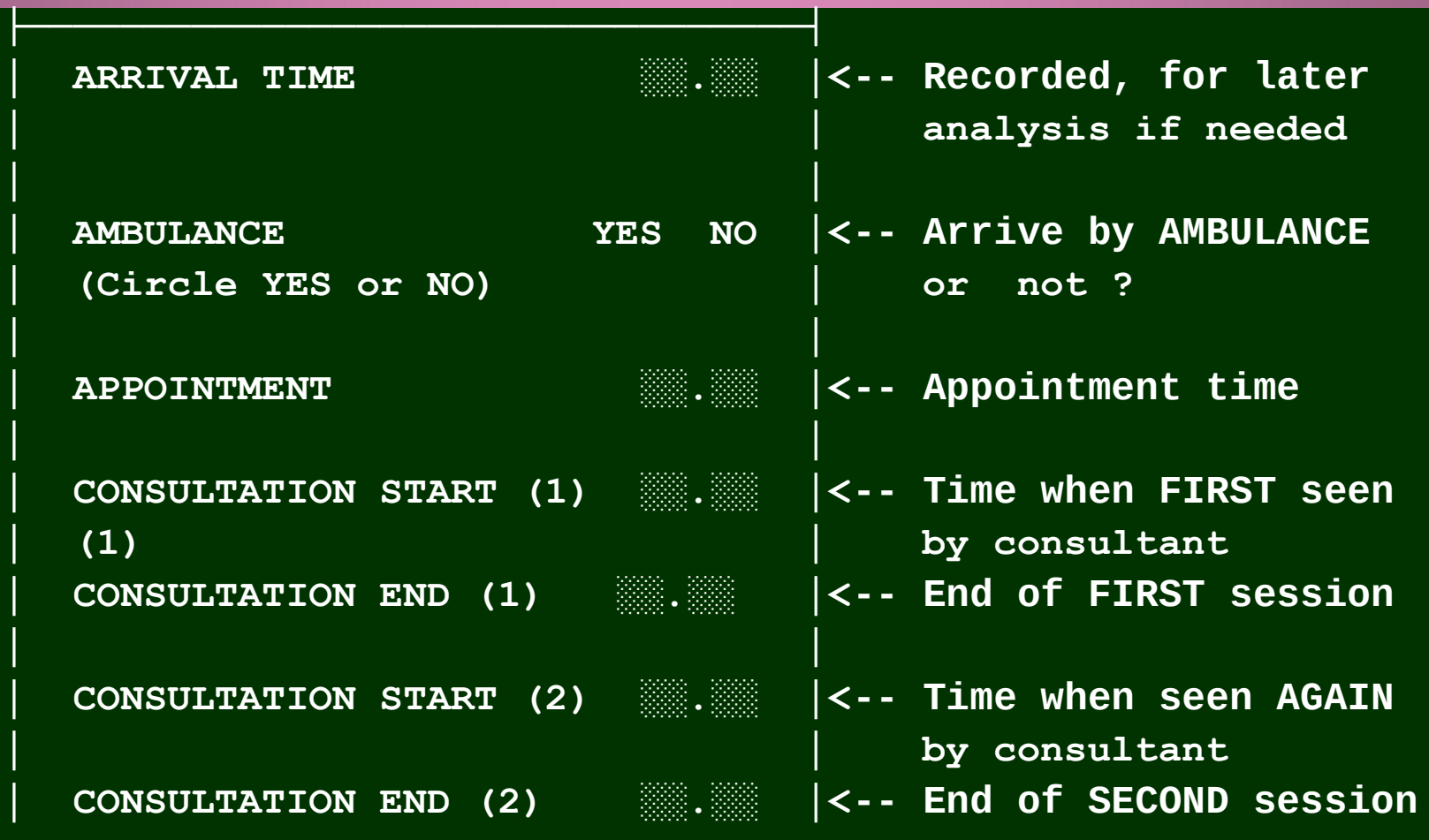

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OTHER DEPT. ATTENDED (Circle YES or NO)	*YES*	*NO*	*<-- Needed to visit other department ?*
NEW PATIENT	*YES*	*NO*	*<-- NEW or CONTINUING patient ?*
LATE (More than 10 mins)	*YES*	*NO*	*<-- Patient LATE ?*
Comments			

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Number of consultations : 33
Number of split consultations : 2 [6.1% of total]
Mean waiting time (ALL) : 11.8 mins
Median waiting time (ALL) : 15.0 mins
Maximum [id 467548] : 70 mins
Minimum : -60 mins
Mean waiting time (ambulance) : 12.6 mins
Mean waiting time (non ambulance) : 11.1 mins
T-Test of differences in waiting times = 0.141
*[**NOT** significant at 5% level]*
*Mean consultation time **[ALL]** : 23.1 mins*
Mean consultation time [New] : 57.4 mins N= 5 [15.2%]
Mean consultation time [Continuing] : 17.0 mins N= 28 [84.8%]

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WAITING TIMES NON-DELAYED patients only CONSUL_X.AU8

Value label	Frequency	Cum Pct
Before time	*9*	*30.0*	*30.0*
0 - 10 mins	*4*	*13.3*	*43.3*
11 - 20 mins	*8*	*26.7*	*70.0*
21 - 30 mins	*2*	*6.7*	*76.7*
31 - 40 mins	*4*	*13.3*	*90.0*
41 - 50 mins	*1*	*3.3*	*93.3*
51 - 60 mins	*1*	*3.3*	*96.7*
61 - 70 mins	*1*	*3.3*	*100.0*
TOTAL	*30*	*100.0*	

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Before time	*9*	*xxxxxxxxx*
0 - 10 mins	*4*	*xxxx*
11 - 20 mins	*8*	*xxxxxxxx*
21 - 30 mins	*2*	*xx*
31 - 40 mins	*4*	*xxxx*
41 - 50 mins	*1*	*x*
51 - 60 mins	*1*	*x*
61 - 70 mins	*1*	*x*
Valid cases	*30*	

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Table 1 : Waiting times in Clinics- National Sample(1989)

Time spent waiting	Cumulative percent		Proportion who found wait unreasonable
Less than 10 mins	11%	11%	2%
10 mins - < 20 mins	18%	29%	2%
20 mins - < 30 mins	16%	45%	2%
30 mins - < 45 mins	14%	59%	10%
45 mins - < 60 mins	13%	72%	34%
60 mins - < 90 mins	13%	85%	44%
90 mins - <120 mins	9%	94%	61%
120 mins or more	6%	100%	77%
All outpatients	**639**		**23%**

Adapted from Cartwright and Windsor (1992): *Outpatients and their Doctors* Table 26, p. 59

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Waiting Time Pilot Study [*December, 1991*]

Value Label	Frequency	Percent	Cumulative Percent
Before time	27	12.3	12.3
0 - 10 mins	18	8.2	20.5
11 - 20 mins	27	12.3	32.7
21 - 30 mins	33	15.0	47.7
31 - 40 mins	26	11.8	59.5
41 - 50 mins	29	13.2	72.7
51 - 60 mins	13	5.9	78.6
60 + minutes	47	21.4	100.0
TOTAL	220	100.0	

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Waiting Time - Sample of 10 clinics [*March 1993*]

Value Label	Frequency	Percent	Cum. Percent
Before time	44	15.1	15.1
0 - 10 mins	80	27.5	42.6
11 - 20 mins	61	21.0	63.6
21 - 30 mins	56	19.2	82.8
31 - 40 mins	29	10.0	92.8
41 - 50 mins	13	4.5	97.3
51 - 60 mins	3	1.0	98.3
61 - 70 mins	1	0.3	98.6
71 - 80 mins	1	0.3	99.0
80 + mins	3	1.0	100.0
TOTAL	291	100.0	

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Reasons for improvement ?

- The data pinpointed the ‘pinch points’ e.g. ambulances
- Split between data collection (*analyst* – Mike Hart) and management proved beneficial
- Perceptions differed by type of clinic (e.g. kidney dialysis did not regard time spent as ‘wasted’

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The Hawthorne effect (named after the Hawthorne factory of the Western Electric Company (1924-33)…

'… the act of observation alters the behaviour of those being observed'

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Hawthorne effect No. 1

(Ward clerks 'control' their consultant…)

Hawthorne effect No. 2

(Consultant cancels appointments…)

Is this the 'tip of an iceberg' or 'one in a million' chance…

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Who is the customer ?

An aged female who has a hip operation and attendant physiotherapy will be the 'consumer' of services but the actual 'purchaser' could well be :

- herself (privately, own resources)
- herself (privately, via an insurance policy)
- her family
- her local community
- in some instances, a voluntary organisation
- her GP fundholder
- a purchasing consortium
- the DHA in its role as 'purchaser'

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SERVQUAL: Five dimensions of service quality have been derived:

- ***Tangibles***: **Physical facilities, equipment and appearance of personnel**
- ***Reliability***: **Ability to perform the promised service dependably and accurately**
- ***Responsiveness***: **Willingness to help consumers and provide prompt service**
- ***Assurance***: **Knowledge and courtesy of employees and their ability to inspire trust and confidence**
- ***Empathy***: **Caring, individualised attention the organisation provides the consumers of its services**

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Dimension	Weight	USA Studies (2 banks, 2 insurance companies,1 credit card company)		
		Perceptions [P]	Expectations [E]	Gap [P-E]
Tangibles	11	5.54	5.16	+0.38
Reliability	32	5.16	6.44	-1.28
Responsiveness	22	5.20	6.36	-1.16
Assurance	19	5.50	6.50	-1.00
Empathy	16	5.16	6.28	-1.12
n=1936	Weighted av.	5.28	6.27	-0.99

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Dimension	Weight	Public Library Service (Scotland)		
		Perceptions [P]	Expectations [E]	Gap [P-E]
Tangibles	18	5.68	5.93	-0.25
Reliability	23	6.10	6.30	-0.20
Responsiveness	22	6.62	6.51	+0.11
Assurance	21	6.58	6.29	+0.29
Empathy	17	6.28	6.27	+0.01
n= 368	Weighted av.	6.33	6.33	0.00

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Dimension	Weight	Home Help Service (Scotland)		
		Perceptions [P]	Expectations [E]	Gap [P-E]
Tangibles	17	5.28	4.72	+0.56
Reliability	20	5.91	5.47	+0.44
Responsiveness	21	6.33	5.74	+0.59
Assurance	21	6.40	5.93	+0.47
Empathy	21	6.06	5.62	+0.44
n= 124	Weighted av.	6.03	5.53	+0.50

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East Midlands, UK Outpatients [July 1995]

Dimension	Weight	Perceptions	Expectations	Gap
Tangibles	0.13	5.21	5.24	-0.03
Reliability	0.26	5.52	6.31	-0.79
Responsiveness	0.21	5.88	6.17	-0.29
Assurance	0.20	5.98	6.39	-0.41
Empathy	0.20	5.66	6.16	-0.50
Weighted averages [n= 72]		5.67	6.15	-0.48

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Vaasa,Finland Outpatients [Jan-Feb 1996]

Dimension	Weight	Perceptions	Expectations	Gap
Tangibles	0.18	5.64	6.03	-0.38
Reliability	0.21	5.51	6.04	-0.54
Responsiveness	0.20	5.73	6.12	-0.39
Assurance	0.22	5.83	6.23	-0.40
Empathy	0.19	5.74	6.08	-0.35
Weighted averages [n= 135]		5.72	6.14	-0.41

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Magnitude scaling… the problem expressed (1)

A conventional 'orthodoxy' follows Stevens [1946] categorisation of scales into nominal,ordinal, interval and ratio. As Blalock [1979] explains:

"It is important to recognise that an ordinal level of measurement does not supply any information about the MAGNITUDE of the differences between elements. We know only that A is greater than B but cannot say how much greater. Nor can we say that the difference between A and B is less than that between C and D. We therefore cannot add or subtract differences except in a very restricted sense. For example if we had the following relationships:

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Magnitude scaling… the problem expressed (2)

we can say that the distance

$$\overline{AD} = \overline{AB} + \overline{BC} + \overline{CD}$$

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Refinement of Lodge Magnitude Weightings (Hart, M.C. 1996b)

	Atroc-ious	Very Bad	Bad	So-So	Good	Very Good	Excell-ent
Point on scale	267	201	143	(100)	187	269	362
Score of each point	2.6	2.0	1.4	0	1.9	2.7	3.6

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	Strongly Disagree						Strongly Agree
Point on scale	1	2	3	4	5	6	7
Score of each point	-2.6	-2.0	-1.4	0	1.9	2.7	3.6

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Ecological validity

‘In the context of the discussion of quality, I would argue that ecological validity is only preserved if investigators take into account the conceptions of 'quality' that are carried round in the heads of the participants. To study 'quality processes' at work in a clinic, one needs to observe not only processes and outcomes within a clinic but also the perceptions of the nature of the interactions in the minds of the participants themselves.’

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"What would you say was a good clinic ? "

	VALUE	N	CUM_N	PERCENT	CUM.PCT	Barchart
Friendly staff	1	22	22	27.16	27.16	22
Good consultation	2	21	43	25.93	53.09	21
No long waiting time	3	17	60	20.99	74.07	17
Nothing in particular	4	11	71	13.58	87.65	11
Facilities for children	5	5	76	6.17	93.83	5
Access, Convenience	6	3	79	3.70	97.53	3
Better than ?? Hospital	7	2	81	2.47	100.00	2

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Dr. ___ makes the child feel relaxed and not agitated. The Dr. is always very friendly.

A 'good' clinic is when you are listened to and the doctor is interested in you. Then, you do not feel the clinic is a waste of time.

When the doctor tries to explain things to you and talks things through. This can help to alleviate my worries...

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Some patients referred to the totality of the transactions that they held with clinic staff:

[A good clinic is..] ***the helpfulness of the staff. Nothing is too much trouble for them. You cannot really fault them at all..***

After the friendliness of the staff and the communication with the consultant, the absence of a long waiting time was the third most mentioned factor:

[A good clinic is] ***one that is easier for the children in the area.. it's easier than*** **[central hospital]** ***where you usually have to wait a long time.***

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The research summarised…

[1] ‘ purely quantitative, or monitoring style activities, are at best incomplete or, at worst, liable to be misleading’

[2] ‘ it is possible that <u>every single quantitative indicator</u> becomes a perverse incentive’

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References to Mike Hart's papers on this theme:

http://www.mikehart.co.uk/papers