'Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) orders:

Current practice and problems
- and a possible solution'

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- The origins and need for DNACPR orders
- Some problems with DNACPR orders
- Some alternative approaches

The development of the DNACPR

- CPR first introduced in 1960s
- Then a ‘secret code’ (hearts, stars, not for ‘2’s)
- 1991 UK ombudsman upheld complaint – first ‘Do Not Resuscitate’ orders followed
- Then DNAR then DNACPR
- In the front of notes, often red

Issue 1 : Not routinely completed

- Qualitative study Cohn *et al* Q J Med 2013; 106:165–177
  - Completed on an *ad hoc* basis
- NCEPOD report
  - 430/522 (78%) of patients had no resuscitation status decision documented
  - 7/573 patients who underwent CPR were on an end of life care pathway

Issue 2 : Inappropriate resuscitation attempts

- NCEPOD: 118/202 patients who had survived resuscitation were not admitted to ICU

Table 7.17 Reason patient was not admitted to critical care

Reason	n	%
No need for admission, patient would recover with lower level care	32	28.3
No need for admission, patient expected to die	66	58.4
No critical care beds, patient would have been admitted but no facility	2	1.8
Other	13	11.5
Subtotal	113	
Not answered	5	
Total	118	

Issue 3: Not routinely discussed

- NCEPOD report 11/40 cases discussed with patient, 22/38 with relatives
- 50% discussed with patients or relatives

  (Fritz ZB, Heywood RM, Moffat SC, et al. Characteristics and outcome of patients with DNACPR orders in an acute hospital; an observational study. *Resuscitation* 2014;85(1):104-8.)

- Continued press coverage (and legal cases)

27 October 2011 Last updated at 06:03

York Hospital criticised over patient resuscitation

York Hospital has been criticised for not asking relatives of some patients if they should be resuscitated.

The hospital's own guidelines say do not attempt resuscitation forms should be updated regularly

The Care Quality Commission (CQC) said York Teaching Hospital NHS Trust had failed to meet its own guidelines.

It said Do Not Attempt Resuscitation (DNAR) forms should be updated regularly, with relatives' views taken into account.

The trust said it was "sorry" if any distress had been caused and it would "listen" to the CQC's recommendations.

Inspectors visited the York Hospital, St Helen's Rehabilitation Hospital and White Cross Court Rehabilitation Hospital in July 2011.

'Difficult topic'

They found that DNAR forms at York Hospital and St Helen's were not being completed correctly.

5 November 2013 Last updated at 09:05

Bournemouth hospital doctors 'signed death warrant'

Doctors at a Dorset hospital signed a "do not resuscitate" order on a patient without informing her or her family.

June Brook is now back at home with her son after a spell in hospital

June Brook, 79, had been admitted to Royal Bournemouth Hospital with sickness and diarrhoea but during her stay the order was issued to allow her to die if she needed resuscitating.

The order, which states the family were "not available", was found in Mrs Brook's bag after she was discharged.

The hospital has apologised and promised an investigation.

The order, which stays on a patient's records, was signed by two doctors and dated 10 October 2013. It states CPR would be inappropriate because Mrs Brook has dementia.

'Legalised euthanasia'

Mrs Brook's son, Kevin, said: "It would basically have meant that they would have not resuscitated her and she would now no longer be with us.

"To me it looks like a death warrant.

Related Stories

Doctor 'mixed up' boy who died

Hospital needs urgent improvements

8 May 2014 Last updated at 13:49

'Clarity needed' over resuscitation orders

By Jane Dreaper
Health correspondent, BBC News

Clearer guidance is needed about when "do not resuscitate" orders can be placed on patients' medical records, the Court of Appeal investigating an unlawful case has heard.

Janet Tracey, who had terminal lung cancer, died in hospital in Cambridge three years ago.

Her family say she and they were not consulted when a DNR notice was put on her records.

Related Stories

Ruling in 'no resuscitation' case

To discuss or not to discuss….

- Legal and Media focus on patients having DNACPR 'without knowledge'
  - Court of appeal currently considering whether placing a DNACPR order without discussion with the patient is in breach of article 8 of the European Convention of Human Rights
- Some patients anxious about being resuscitated; not talking with them about DNACPR may cause as much /more distress

  (in preparation, A Malyon *et al*)


P.T.O
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Issue 4: Misunderstood

- Less frequently referred to outreach or receive out of hours care

  Interpretation and intent: A study of the (mis)understanding of DNAR orders in a teaching hospital Z Fritz et al Resuscitation 2010 81;9: 1138-1141

- Reduction in the urgency attached to reviewing a deteriorating patient.

  The over-interpretation of DNAR Stewart, M. et al Clin Gov 2011 16;2:119-128

- Most common reason for no DNACPR in NCEPOD "Full and active management" 76.9%

Issue 5: Difference in care

- Chen – reduction in treatment for heart failure

  Chen JL, et al (2008) Impact of do-not resuscitate orders on quality of care performance measures in patients hospitalized with acute heart failure. Am Heart J 156: 78–84.

- Cohen – best predictor of not being admitted to ICU

  Cohen RI, et al(2009) The impact of donot-resuscitate order on triage decisions to a medical intensive care unit. J Crit Care 24: 311–5.

- Kazaure – increased mortality in surgical patients

  Kazaure H, et al (2011) High mortality in surgical patients with do-not-resuscitate orders: analysis of 8256 patients. Arch Surg 146: 922–8.

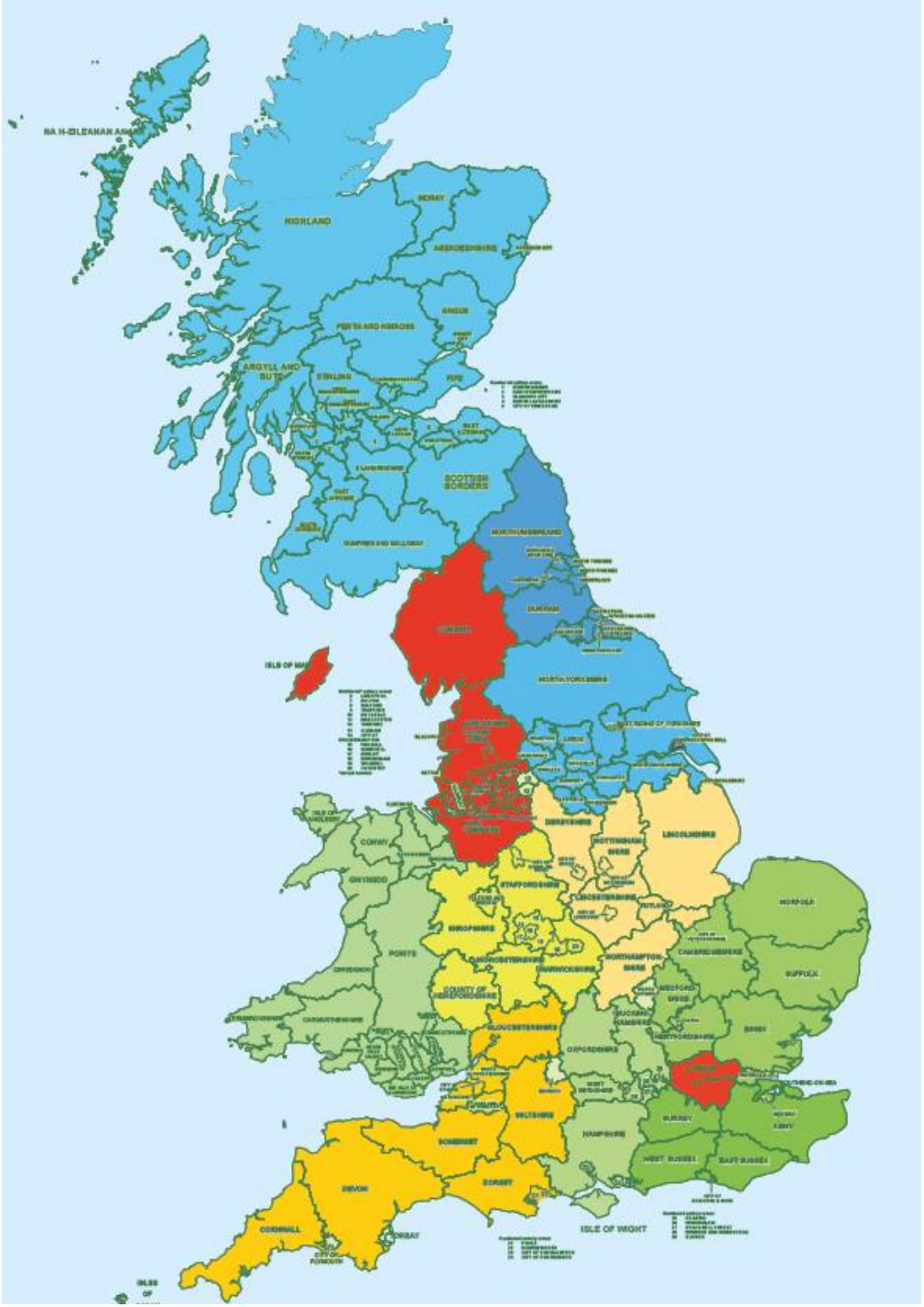
- Beach and Henneman – scenario experiments

  Henneman EA et al(1994) Effect of do not-resuscitate orders on the nursing care of critically ill patients. Am J Crit Care 3: 467–72.

  Beach MC et al (2002) The effect of do-not-resuscitate orders on physician decision-making. J Am Geriatr Soc 50: 2057–61.

Issue 6: Differences across Health Care Settings/Regions

- Variation in which form used across regions and care settings
- Survey of all forms used in Acute Trusts (further work pending looking at different health care settings)
- Documentation of resuscitation decision-making: a survey of practice in the United Kingdom. Clements M, Fuld J, Fritz Z .2014 May;85(5):606-11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EAST SUSSEX
ISLE OF WIGHT

	RCUK form variations	Alternative forms
RCUK Recommendations		
Number of variations	48	104
Number of hospitals in use	182	293
Capacity/advance decision documented	100%	52.80%
Summary of main clinical problem	100%	12.50%
Reasons why CPR is inappropriate	100%	85.60%
Summary of communication with patient	100%	89.40%
Summary of communication with family/friends	100%	24.00%
Members of MDT notified	100%	15.30%
Healthcare professional signature	100%	100%
Review by senior	100%	84.60%
Prominent unique characteristics		
Colour		
Red border	100%	79.50%
Pink		0.70%
Lilac		9.50%
Orange		2.80%
Blue		0.30%
Purple		0.70%
White		15.50%
Multi		2.50%
Online		1%
Ceiling of Care plan	0%	12.70%
Ambulance/transfer instructions	0%	66.80%
Valid in community	0%	48.40%
Space for ongoing reviews	100%	89.40%
Specified seniority rank required for endorsement	49%	43.80%
Message in a bottle	0%	9.50%

Ongoing work - Assessing the Issues

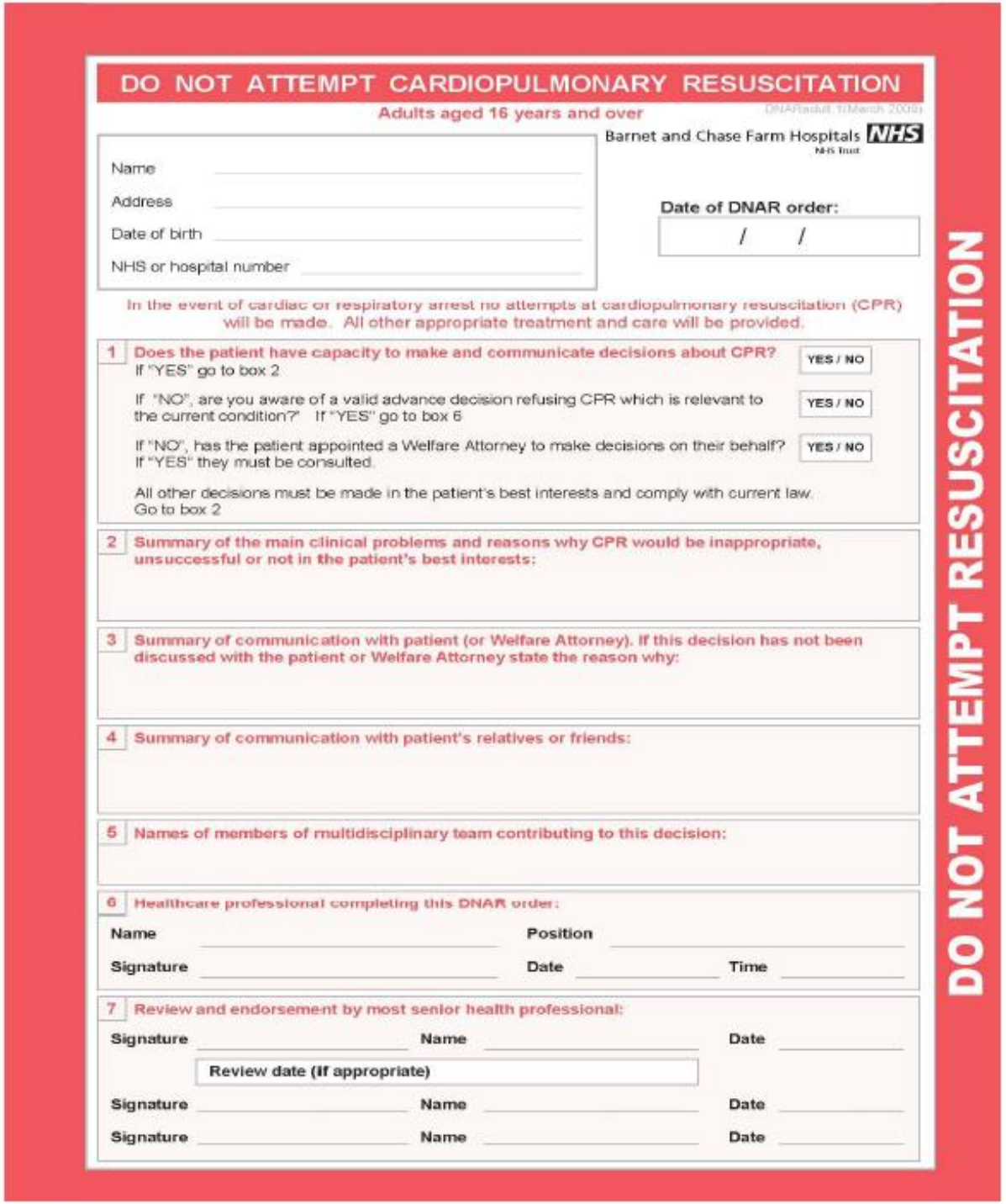
- DNACPR scoping project – Warwick University
  - Synthesis of research evidence
  - Identify why conflict and complaints arise
  - Explore inconsistencies in implementation of national guidelines across the NHS and examples of best practice
    - Focus groups
    - Policy and complaints review
    - Key informant interview
  - Dissemination event planned for October

Funded by the National Institute of Health Research

Alternative approaches…

RCUK form

Resuscitation UK sample DNACPR



DO NOT ATTEMPT CARDIOPULMONARY RESUSCITATION

Adults aged 16 years and over

DNARadult 1stMarch 2007

Barnet and Chase Farm Hospitals NHS

NHS Trust

Name

Address

Date of birth

NHS or hospital number

Date of DNAR order: / /

In the event of cardiac or respiratory arrest no attempts at cardiopulmonary resuscitation (CPR) will be made. All other appropriate treatment and care will be provided.

1 Does the patient have capacity to make and communicate decisions about CPR? YES / NO

If "YES" go to box 2

If "NO", are you aware of a valid advance decision refusing CPR which is relevant to the current condition?" If "YES" go to box 6 YES / NO

If "NO", has the patient appointed a Welfare Attorney to make decisions on their behalf? If "YES" they must be consulted. YES / NO

All other decisions must be made in the patient's best interests and comply with current law. Go to box 2

2 Summary of the main clinical problems and reasons why CPR would be inappropriate, unsuccessful or not in the patient's best interests:

3 Summary of communication with patient (or Welfare Attorney). If this decision has not been discussed with the patient or Welfare Attorney state the reason why:

4 Summary of communication with patient's relatives or friends:

5 Names of members of multidisciplinary team contributing to this decision:

6 Healthcare professional completing this DNAR order:

Name Position

Signature Date Time

7 Review and endorsement by most senior health professional:

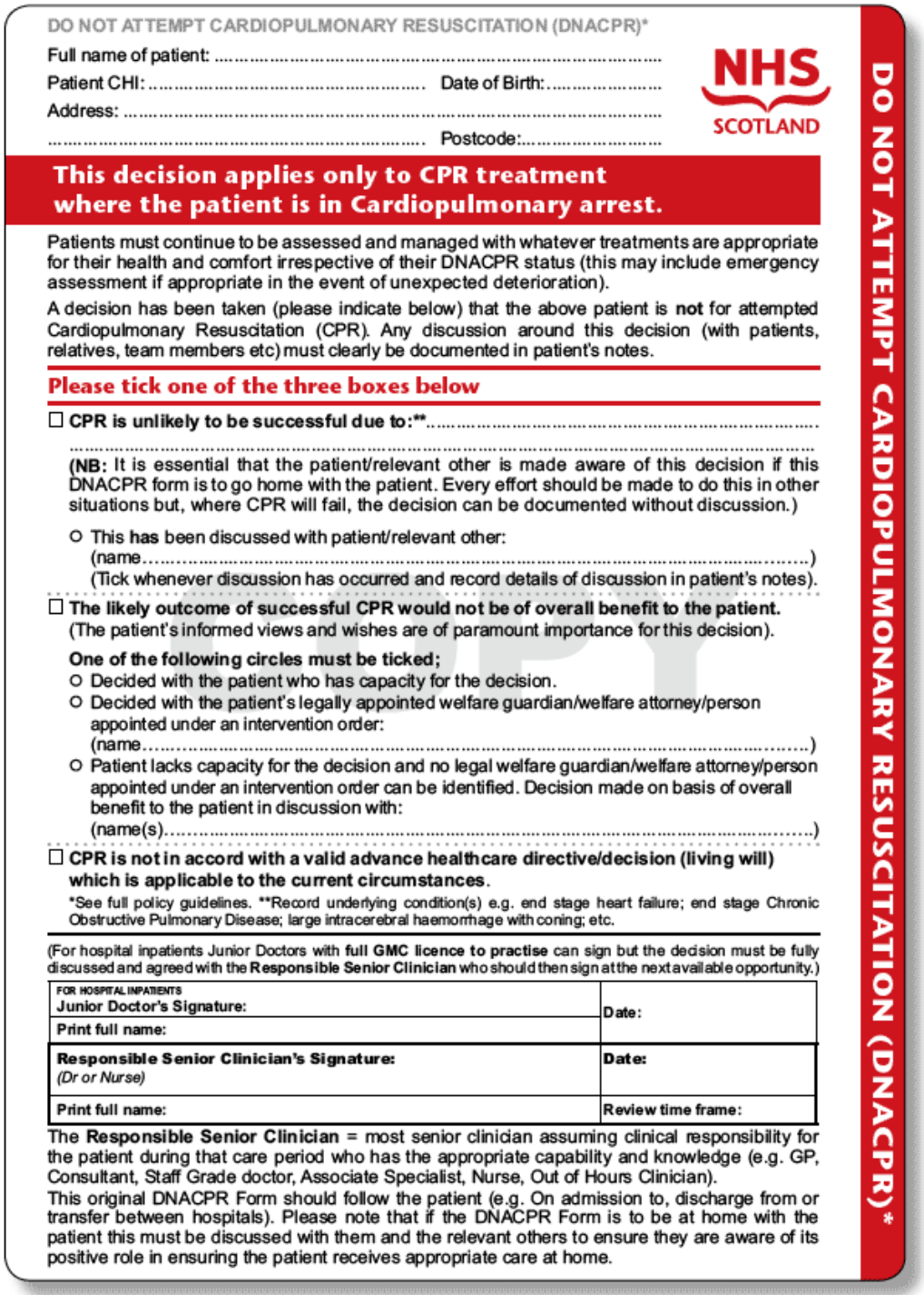
Signature Name Date

Review date (If appropriate)

Signature Name Date

Signature Name Date

DO NOT ATTEMPT RESUSCITATION



DO NOT ATTEMPT CARDIOPULMONARY RESUSCITATION (DNACPR)*

Full name of patient: .....

Patient CHI: ..... Date of Birth: .....

Address: .....

..... Postcode: .....

NHS SCOTLAND

This decision applies only to CPR treatment where the patient is in Cardiopulmonary arrest.

Patients must continue to be assessed and managed with whatever treatments are appropriate for their health and comfort irrespective of their DNACPR status (this may include emergency assessment if appropriate in the event of unexpected deterioration).

A decision has been taken (please indicate below) that the above patient is **not** for attempted Cardiopulmonary Resuscitation (CPR). Any discussion around this decision (with patients, relatives, team members etc) must clearly be documented in patient's notes.

Please tick one of the three boxes below

☐ **CPR is unlikely to be successful due to:****.....

.....

(NB: It is essential that the patient/relevant other is made aware of this decision if this DNACPR form is to go home with the patient. Every effort should be made to do this in other situations but, where CPR will fail, the decision can be documented without discussion.)

○ This **has** been discussed with patient/relevant other:
(name.....)
(Tick whenever discussion has occurred and record details of discussion in patient's notes).

☐ **The likely outcome of successful CPR would not be of overall benefit to the patient.**
(The patient's informed views and wishes are of paramount importance for this decision).

One of the following circles must be ticked;

○ Decided with the patient who has capacity for the decision.

○ Decided with the patient's legally appointed welfare guardian/welfare attorney/person appointed under an intervention order:
(name.....)

○ Patient lacks capacity for the decision and no legal welfare guardian/welfare attorney/person appointed under an intervention order can be identified. Decision made on basis of overall benefit to the patient in discussion with:
(name(s).....)

☐ **CPR is not in accord with a valid advance healthcare directive/decision (living will) which is applicable to the current circumstances.**

*See full policy guidelines. **Record underlying condition(s) e.g. end stage heart failure; end stage Chronic Obstructive Pulmonary Disease; large intracerebral haemorrhage with coning; etc.

(For hospital inpatients Junior Doctors with **full GMC licence to practise** can sign but the decision must be fully discussed and agreed with the **Responsible Senior Clinician** who should then sign at the next available opportunity.)

FOR HOSPITAL INPATIENTS **Junior Doctor's Signature:**	**Date:**
Print full name:	
Responsible Senior Clinician's Signature: *(Dr or Nurse)*	**Date:**
Print full name:	**Review time frame:**

The **Responsible Senior Clinician** = most senior clinician assuming clinical responsibility for the patient during that care period who has the appropriate capability and knowledge (e.g. GP, Consultant, Staff Grade doctor, Associate Specialist, Nurse, Out of Hours Clinician).

This original DNACPR Form should follow the patient (e.g. On admission to, discharge from or transfer between hospitals). Please note that if the DNACPR Form is to be at home with the patient this must be discussed with them and the relevant others to ensure they are aware of its positive role in ensuring the patient receives appropriate care at home.

DO NOT ATTEMPT CARDIOPULMONARY RESUSCITATION (DNACPR)*

- Valid throughout all NHS healthcare settings in Scotland since 2010

- "Deciding Right"
- NE England

This DNACPR decision applies only to CPR treatment where the child, young person or adult is in cardiopulmonary arrest

NHS North East

- In this individual, CPR need not be initiated and the hospital cardiac arrest team or paramedic ambulance need not be summoned
- The individual must continue to be assessed and managed for any care intended for their health and comfort- this may include an *unexpected* and reversible crisis for which emergency treatment is appropriate
- All details must be clearly documented in the notes

Keep original in patient's care setting

DO NOT ATTEMPT CARDIOPULMONARY RESUSCITATION (DNACPR) v15

Name: NHS no:

Address: Date of birth:

Postcode: Hospital no:

GP and practice:

If an arrest is anticipated in the current circumstances and CPR is not to start, tick at least one of these reasons:

- ☐ There is *no realistic chance that CPR could be successful* due to: .....
- ☐ CPR could succeed, but the individual with capacity for deciding about CPR *is refusing consent*
- ☐ CPR could succeed but the individual, who now does not have capacity for deciding about CPR, has a *valid and applicable ADRT or court order* refusing CPR
- ☐ This decision was made with the person who has parental responsibility for the child or young person
- ☐ This decision was made following the *Best Interests* process of the Mental Capacity Act

YES NO n/a Has there been a team discussion about CPR in this child, young person or adult?

YES NO n/a Has the young person or adult been involved in discussions about the CPR decision?

YES NO n/a Has the individual's personal welfare lasting power of attorney (also known as a health and welfare LPA), court appointed deputy or IMCA been involved in this decision?

YES NO n/a Has the individual agreed for the decision to be discussed with the parent, partner or relatives?

YES NO n/a Is there an emergency health care plan (EHCP) in place for this individual?

Junior doctor (must have full GMC licence to practise, and have discussed & agreed with the senior responsible clinician below *before* activating DNACPR)	Sign:	Name: Date:
Senior responsible clinician (If a junior doctor has signed, the senior responsible doctor or nurse must sign this at the next available opportunity)	Sign:	**Name:** **Status:** **Date:**

Key people involved in this decision eg. parent, LPA:

For those individuals transferring to their preferred place of care (NB. Cat. 1 transport is usual)

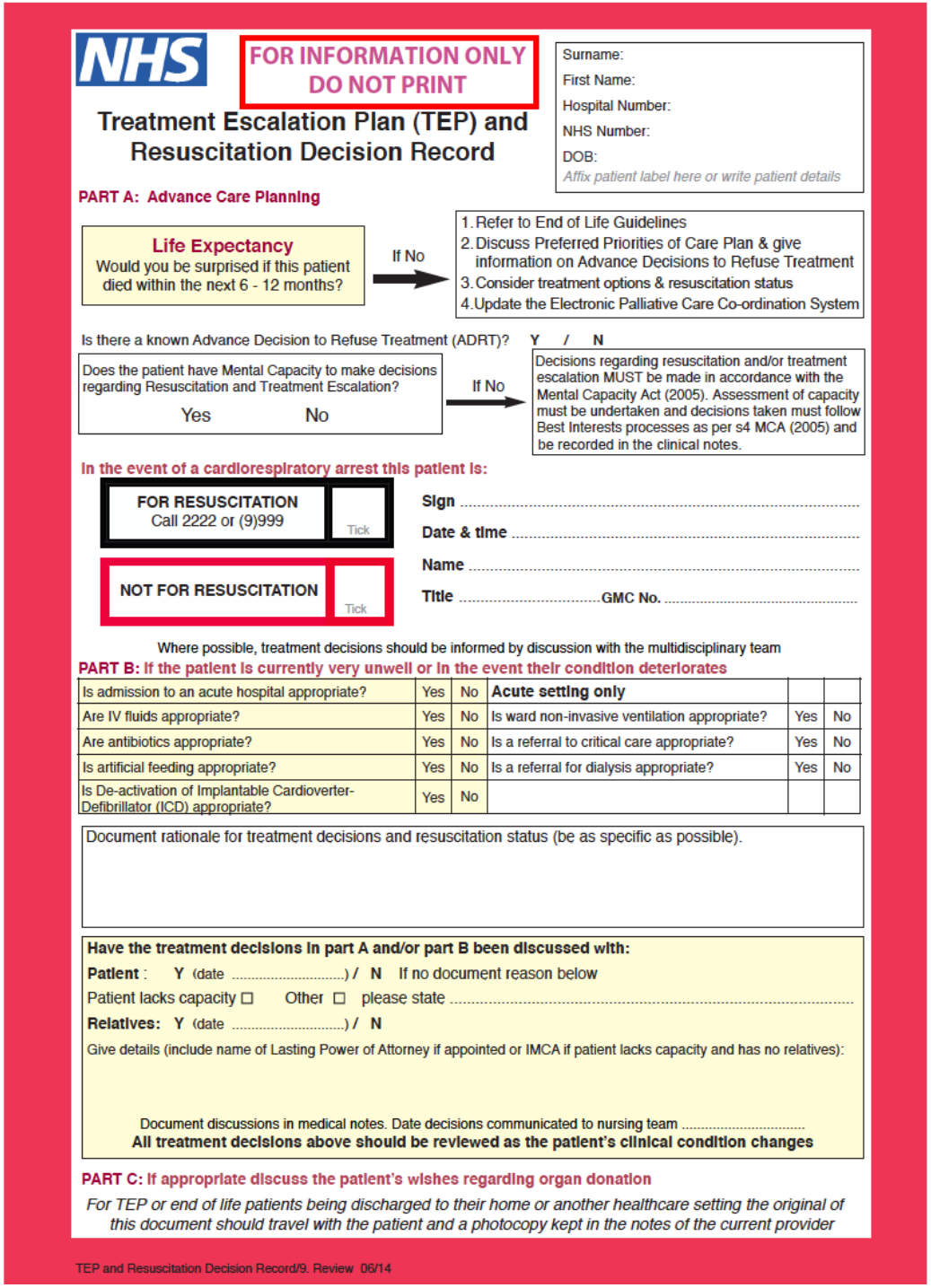
- If the individual has a cardiopulmonary arrest during the journey, DNACPR and take the patient to:
  The original destination ☐ Journey start ☐ A&E ☐ **Try to contact the following key person:**
  Name: **Status:** **Tel:**
- If the young person or adult is not aware of the DNACPR, consider informing them as part of their end of life care discussions. Ask if they wish the parent, partner or relative to know about the DNACPR decision.

Review dates

Review dates must be no longer than 3 months (never write 'indefinite')
Check for any change in clinical status that may mean cancelling the DNACPR.
Reassess the decision regularly- while this does not mean burdening the individual and family with a decision every day, it does require staff to be sensitive in picking up any change of views during discussions with the individual, partner or family.
Any senior responsible clinician can review the DNACPR decision

Date of next review	Write name & sign when confirmed
Review whenever the condition or place of care changes	

- Devon TEP
- Developed 2006
- Positive patient feedback
- (Obolensky L, et al (2010) A patient and relativecentred evaluation of treatment escalation plans: a replacement for the do-not resuscitate process. J Med Ethics 36: 518–20.



NHS

FOR INFORMATION ONLY
DO NOT PRINT

Treatment Escalation Plan (TEP) and Resuscitation Decision Record

Surname:
First Name:
Hospital Number:
NHS Number:
DOB:
Affix patient label here or write patient details

PART A: Advance Care Planning

Life Expectancy
Would you be surprised if this patient died within the next 6 - 12 months?

If No →

1. Refer to End of Life Guidelines
2. Discuss Preferred Priorities of Care Plan & give information on Advance Decisions to Refuse Treatment
3. Consider treatment options & resuscitation status
4. Update the Electronic Palliative Care Co-ordination System

Is there a known Advance Decision to Refuse Treatment (ADRT)? Y / N

Does the patient have Mental Capacity to make decisions regarding Resuscitation and Treatment Escalation?
Yes No

If No →

Decisions regarding resuscitation and/or treatment escalation MUST be made in accordance with the Mental Capacity Act (2005). Assessment of capacity must be undertaken and decisions taken must follow Best Interests processes as per s4 MCA (2005) and be recorded in the clinical notes.

In the event of a cardiorespiratory arrest this patient is:

FOR RESUSCITATION Call 2222 or (9)999	Tick
NOT FOR RESUSCITATION	Tick

Sign .....
Date & time .....
Name .....
Title ..... **GMC No.** .....

Where possible, treatment decisions should be informed by discussion with the multidisciplinary team

PART B: If the patient is currently very unwell or in the event their condition deteriorates

Is admission to an acute hospital appropriate?	Yes	No	**Acute setting only**		
Are IV fluids appropriate?	Yes	No	Is ward non-invasive ventilation appropriate?	Yes	No
Are antibiotics appropriate?	Yes	No	Is a referral to critical care appropriate?	Yes	No
Is artificial feeding appropriate?	Yes	No	Is a referral for dialysis appropriate?	Yes	No
Is De-activation of Implantable Cardioverter-Defibrillator (ICD) appropriate?	Yes	No			

Document rationale for treatment decisions and resuscitation status (be as specific as possible).

Have the treatment decisions in part A and/or part B been discussed with:

Patient : **Y** (date .....) / **N** If no document reason below

Patient lacks capacity ☐ Other ☐ please state .....

Relatives: **Y** (date .....) / **N**

Give details (include name of Lasting Power of Attorney if appointed or IMCA if patient lacks capacity and has no relatives):

Document discussions in medical notes. Date decisions communicated to nursing team .....

All treatment decisions above should be reviewed as the patient's clinical condition changes

PART C: If appropriate discuss the patient's wishes regarding organ donation

For TEP or end of life patients being discharged to their home or another healthcare setting the original of this document should travel with the patient and a photocopy kept in the notes of the current provider

TEP and Resuscitation Decision Record/9. Review 06/14

Aims of an alternative appr

- Remove the a*d hoc* nature of consideration
- Improve care for those in whom a decision not to resuscitate had been made
    - Remove ‘resus’ labeling
    - Shift dichotomy to goals of care
    - Encourage forward thinking
    - Provide instruction if a patient deteriorates
- Maintain clarity about resuscitation

Universal Form of Treatment Options (UFTO) development

- Designed iteratively using adapted delphi method
  - Focus groups, interviews, questionnaires, feedback
- with
  - Patients
  - Nurses
  - Doctors
  - Resuscitation officers
  - Behavioural economist

Universal Form of Treatment Options

Addressograph

Relevant information about patient's situation, and reasons for chosen treatment plan:

Details of discussion (and/or reasons for not having one, if none has taken place) overleaf

This patient is for the following treatment plan: *(please sign one of the below boxes, complete the resuscitation box, and sign and date)*

ACTIVE TREATMENT
e.g. investigations, surgical and medical interventions and treatments, referral to on-call doctors or outreach in event of deterioration

Signature……
Date……

OPTIMAL SUPPORTIVE CARE
e.g. analgesia and other comfort measures. This includes minimally invasive treatments (such as paracentesis) to improve symptom control/quality of life. **The patient's comfort should be the priority in determining care.** Please document future care planning on reverse.

Signature……..Date……..

Active Treatment usually includes:
Organ Support or High Dependency Unit if needed and appropriate
(NIV, dialysis, inotropes, venous monitoring, cardioversion, etc.)

If you wish to provide guidance on specific interventions please do so below:

This patient is **FOR attempted CARDIOPULMONARY RESUSCITATION** in the event of a cardiac arrest	This patient is **NOT FOR attempted CARDIOPULMONARY RESUSCITATION** in the event of a cardiac arrest
Signature……..	Signature……..

Name	Signature	Date and Time	Designation
			ST3 or above (consultant to countersign within 72 hours)
			Consultant
			Nurse Informed
Please complete DETAILS OF DISCUSSIONS, and, when appropriate, FUTURE CARE PLANNING on reverse			

Assessment of UFTO

- Before and after study
- Contemporaneous case controls
- Fritz Z, et al. (2013) The Universal Form of Treatment Options (UFTO) as an Alternative to Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) Orders: A Mixed Methods Evaluation of the Effects on Clinical Practice and Patient Care. PLoS ONE 8(9): e70977. doi:10.1371/journal.pone.0070977

  http://www.plosone.org/article/info:doi/10.1371/journal.pone.0070977

Figure 3. 'Word Clouds' generated from summary text on forms of all patients not for cardiopulmonary resuscitation.

Fritz Z, Malyon A, Frankau JM, Parker RA, et al. (2013) The Universal Form of Treatment Options (UFTO) as an Alternative to Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) Orders: A Mixed Methods Evaluation of the Effects on Clinical Practice and Patient Care. PLoS ONE 8(9): e70977. doi:10.1371/journal.pone.0070977
http://www.plosone.org/article/info:doi/10.1371/journal.pone.0070977

Results of Study

- Increase in number of patients recognised as being for palliative care within 72 hours of admission (5/ 587 in DNACPR period, 21/ 573 in the UFTO period p = 0.002
- Change in culture
- Reported ease of conversations
- Reported forward planning

Comparison of characteristics of patients in whom a decision not to resuscitate was made in both groups

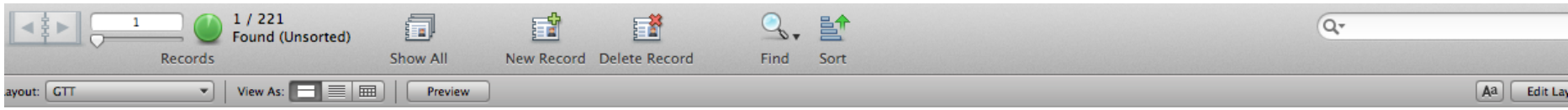
	DNAR (n=103)	UFTO (n=118)	p=value
Age	Mean 82.5 (SD 9.39)	Mean 82.1 (SD 9.11)	0.77
Female Gender	47 (46%)	53 (45%)	1.00
Ward F10	60 (58%)	73 (62%)	0.68
Length of hospital stay (days)	Median 12.0 (IQR 22.0)	Median 12.0 (IQR 16.25)	0.86
Charlson Comorbidity Score	Median 2.0 (IQR3.0)	Median 2.5 (IQR 3.0)	0.61
MEWS score on admission	Median 2.0 (IQR 3.0)	Median 2.0 (IQR 3.0)	0.97

IHI Global Trigger Tool (UK version)

Category E: contributed to or resulted in temporary harm to the patient & required intervention
Category F: contributed to or resulted in temporary harm to patients& required initial or prolonged hospitalisation
Category G: contributed to or resulted in permanent patient harm
Category H: required intervention to sustain life
Category I: contributed to the patient's death

Trigger		+		Event Description and Severity E-I
	General care module			
G 1	Lack of early warning score or early warning score requiring response			
G 2	Any patient fall			
G 3	Decubiti			
G 4	Readmission to hospital within 30 days			
G 5	Shock or cardiac arrest			
G 6	DVT/PE following admission evidenced by imaging +/or D dimmers			
	Surgical care module			
S 1	Return to theatre			
S 2	Change in planned procedure			
S3	Removal/Injury or repair of organ			
	Intensive care module			
I 1	Readmission to ICU or HDU			
I 2	Unplanned transfer to ICU or HDU			
	Patient identifier			
	Total events			
	Total length of stay			

Trigger		+		Event Description and Severity E-I
	Medication module			
M 1	Vitamin K			
M 2	Naloxone			
M 3	Flumazenil			
M 4	Glucagon or 50% glucose			
	Lab test module			
	Haematology			
L1	High INR (>5)			
L 2	Transfusion			
L3	**Abrupt drop in Hb or Hct (>25%)**			
	Biochemistry			
L4	Rising urea or creatinine (>2x baseline)			
L5 L6	Electrolyte abnormalities Na^+ <120 or >160 K^+ <2.5 or >6.5			
L7	Hypoglycaemia (<3mmol/l)			
L8	Raised Troponin (>1.5 ng/ml)			
	Microbiology			
:L9	MRSA bacteraemia			
L10	C. difficile			
L11	VRE			
L12	Wound infection			
L13	Nosocomial pneumonia			
L14	Positive blood culture			



Study ID | General GTT | Intensive and Medication GTT | Lab test GTT | Microbiology | Additional data | Background Data | Free text | EWS

	Number	Details	Harm	Severity	Preventability
G1: Lack of ews or ews requiring response	2	MEWS score of 8 on admission - assessed and treated for CCF and NSETMI plus IV abx. MEWS score of 6 on day 16 of admission - low BP and low temp. given a drink and not assessed. No record of contacting seniors.	(•) yes ( ) no	E	3
G2: Any patient fall			( ) yes ( ) no		
G3: Decubiti	1	grade 3 sacral sore noted on day 14 of admission - had not been documented previous to this. TVN advised re skin care and dressing.	(•) yes ( ) no	F	4
G4: Readmission to hospital within 30 days			( ) yes ( ) no		
G5: Shock or cardiac arrest			( ) yes ( ) no		
G6: DVT/PE following admission			( ) yes ( ) no		
G7: Complication of procedure or treatment			( ) yes ( ) no		
G8: Transfer to higher level of care			( ) yes ( ) no		

Global Trigger Tool Analysis on those patients in whom a decision not to attempt resuscitation was made

	DNAR period (May-July 2010) n = 103	UFTO period (Nov 2010-Jan '11) n = 118	Between group difference (95% CI)	P-value§
Harm rate per 100 admissions	68.9	37.3	31.6 (12.2 to 51.1)	0.001
Harm rate per 1000 patient days	34.7	21.8	12.9 (2.6 - 23.2)	0.01
Harms contributing to patient death (categories H and I)	23/71 (32%)	4/44 (9.1%)	23.3% (7.8% to 36.1%)	0.006
Harms preventable on any level (categories 2-4)	66/71 (93%)	43/44 (98%)	-4.8% (-13.4% to 5.6%)	0.40

§P-value calculated using Fisher's Exact test for categorical variables, and a z-test for rates

Contemporaneous Case Control GTT findings

	DNAR period (May-July 2010) n = 25	UFTO period (Nov 2010-Jan '11) n = 25	Between group difference (95% CI)	P-value§
Harm rate per 100 admissions	52	68	16 (-26.9 to 58.9)	0.47
Harm rate per 1000 patient days	18	32	-14.2 (-32.4 to -4.1)	0.13

§P-value calculated using a z-test for rates

Palliative care patients included

	DNAR period (May-July 2010) n = 108	UFTO period (Nov 2010-Jan '11) n = 138	Between group difference (95% CI)	P-value§
Harm rate per 100 admissions	66.7	34.1	32.6 (14.4 to 50.8)	0.0005
Harm rate per 1000 patient days	34.2	19.5	14.7 (5-24.4)	0.003

§P-value calculated using a z-test for rates

No difference at 5% level in patient characteristics

GTT in random sample of those patients for resuscitation

	DNAR period (May-July 2010) n = 60	UFTO period (Nov 2010-Jan '11) n = 58	Between group difference (95% CI)	P-value§
Harm rate per 100 admissions	6.7	8.6	-2(-11.9 to -8)	0.7
Harm rate per 1000 patient days	7.1	7.3	-0.2 (-9.6 to 9.3)	0.97

§P-value calculated using a z-test for rates

(no significant differences in characteristics in two groups)

Secondary end points

	DNAR period (May-July 2010)	UFTO period (Nov 2010-Jan '11)	P-value§
Length of stay in those not for resuscitation	median 12 IQR 20.5	median 12 IQR 15.75	0.86
Whole ward average length of stay	11.7	10.4	
30 day mortality whole ward	58/530 (11%)	71/560 (13%)	0.4
Harms preventable on any level (categories 2-4)	66/71 (93%)	43/44 (98%)	0.40

§P-value calculated using Fisher's Exact test for categorical variables, and a z-test for rates

Summary of UFTO changes

- Change in culture
- Change in reasoning and nature of discussions
- Earlier recognition of palliative care needs
- Reduction in objective harms occurring to those who were not for attempted resuscitation

Ongoing UFTO work

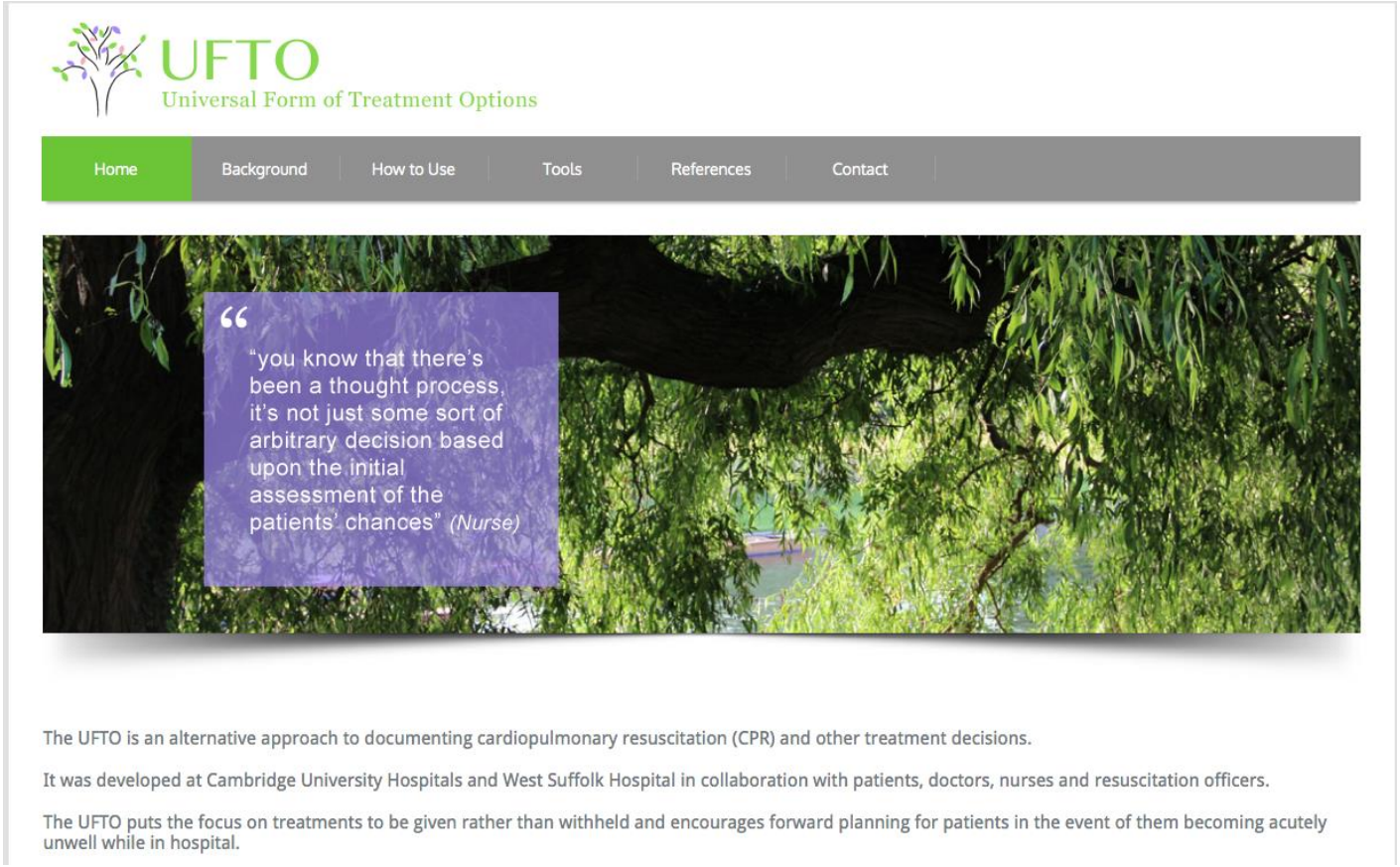
- Further trial in respiratory and oncology wards looking specifically at end of life care
  - Very low rates of documented discussions about advance care planning/resuscitation
- Interviews with patients about end of life planning.
  - Empirical ethics methodology to interview their clinicians
- UFTO implemented trust wide
  - Assessment of implementation
- Planned grant application to look at adapting UFTO for the community

Summary – the present

- Several problems with current approach:
  - *Ad hoc*
  - Patients remaining inappropriately for resuscitation
  - Not routinely discussed
  - Often misunderstood to mean other treatments should be withheld
  - Evidence that patients with DNACPR orders get less good care

Summary – the future

- National form needed
- New approach needed
  - NCEPOD suggest universal
  - Ceilings of care decisions alongside resuscitation
- Frame decision positively
  - To encourage discussions
  - To focus on care to be given


UFTO
Universal Form of Treatment Options
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"you know that there's been a thought process, it's not just some sort of arbitrary decision based upon the initial assessment of the patients' chances" (Nurse)
The UFTO is an alternative approach to documenting cardiopulmonary resuscitation (CPR) and other treatment decisions.
It was developed at Cambridge University Hospitals and West Suffolk Hospital in collaboration with patients, doctors, nurses and resuscitation officers.
The UFTO puts the focus on treatments to be given rather than withheld and encourages forward planning for patients in the event of them becoming acutely unwell while in hospital.

www.ufto.org

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