National Back Exchange - Portfolio of Evidenced Techniques (POETS)

Checklist for use by the Facilitator and to be forwarded with the POETS completed.
Please read accompanying notes first.

Item	Description	Available?
1.	Facilitator appointed? Please name:	
2.	Roles appointed? Please list	
3.	Tape measure (centimetres)	
4.	Weight and height conversion charts	
5.	Equipment for technique (please list in detail, including make and model)	
6.	Manufacturers' instructions (for equipment used please list and attach)	
7.	Stop watch	
8.	Camara (set to high resolution photographs)	
9.	Permission forms to use photographs and completed?	
10.	Data collection forms (sufficient for the session)	
11.	QEC forms (sufficient for the session)	
12.	REBA forms or app (sufficient for the session)	
13.	Handler profiles obtained and included?	
14.	Current evidence for technique available and included?	
15.	**Email** or **what's app** photo with reference, facilitator name and date to: carolejohnson2@gmail.com or **07785730770**	

Data Collection form for Portfolio of Evidenced Techniques (POETs)

Please complete in black ink. Circle or fill in boxes as appropriate

Reference number	Date:
Assessor(s): initials only	Venue:
Technique (include equipment used)	

Space required (in m^2)	Up to $2m^2$	Up to $4m^2$	More than $4m^2$

Model height (cms)					Model weight (kgs):					
Model comfort	10	9	8	7	6	5	4	3	2	1
Model activity	10	9	8	7	6	5	4	3	2	1
Model ability	7		6	5	4		3	2	1	
Risk matrix (model)		LOW		MEDIUM		HIGH		VERY HIGH		
Risk considered										

Risk matrix (handler)		LOW		MEDIUM		HIGH		VERY HIGH							
Risk considered															
Handler 1 effort	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Handler 2 effort	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Handler 1 skill			N		Ab		C		P		E				
Handler 2 skill			N		Ab		C		P		E				
Number of handlers			1				2				2+				

QEC	Exposure level			
Score	Low	Moderate	High	Very high
Back (static)	8-15	16-22	23-29	29-40
Back (moving)	10-20	21-30	31-40	41-56
Shoulder/arm	10-20	21-30	31-40	41-56
Wrist/hand	10-20	21-30	31-40	41-46
Neck	4-6	8-10	12-14	16-18
Work pace	1	4	9	–
Stress	1	4	9	16

Data Collection form for Portfolio of Evidenced Techniques (POETs)

Please complete in black ink. Circle or fill in boxes as appropriate

Reference number		
REBA	**Score**	
	1	negligible risk
	2 or 3	low risk, change may be needed
	4 to 7	medium risk, further investigation, change soon
	8 to 10	high risk, investigate and implement change
	11+	very high risk, implement change

Main risk areas

Time needed	0-1 min	1-2 min	2-5 min	5-10 min	10+ min
Time includes?	**With explanation**	**Without explanation**		**With equipment/ area preparation**	**Without equipment/ area preparation**

Any variations discussed?

Dangers and considerations

Evidence for the techniques? (supply references)

Brief profile of handler 1 (50 words)

Handler 1's assessment of his/her skill level for this task	N	Ab	C	P	E

Brief profile of handler 2 (50 words)

Handler 2's assessment of his/her skill level for this task	N	Ab	C	P	E

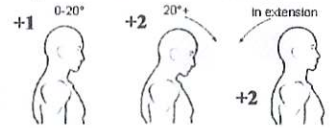
Additional notes/comments

REBA Employee Assessment Worksheet

based on Technical note: Rapid Entire Body Assessment (REBA), Hignett, McAtamney, Applied Ergonomics 31 (2000) 201-205

A. Neck, Trunk and Leg Analysis

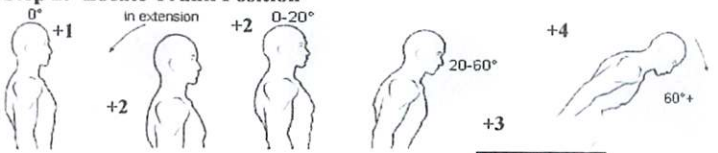
Step 1: Locate Neck Position



Step 1a: Adjust…
If neck is twisted: +1 OR
If neck is side bending: +1

Neck Score

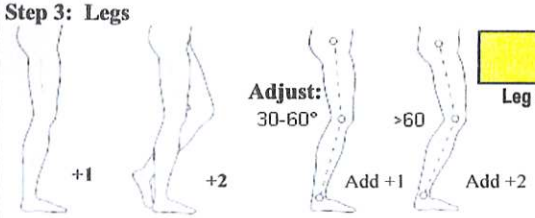
Step 2: Locate Trunk Position



Step 2a: Adjust…
If trunk is twisted: +1 OR
If trunk is side bending: +1

Trunk Score

Step 3: Legs



Leg Score

Step 4: Look-up Posture Score in Table A

Using values from steps 1-3 above, locate score in Table A

Posture Score A

+

Step 5: Add Force/Load Score

If load < 11 lbs : +0
If load 11 to 22 lbs : +1
If load > 22 lbs: +2
Adjust: If shock or rapid build up of force: add +1

Force/Load Score

=

Step 6: Score A, Find Row in Table C

Add values from steps 4 & 5 to obtain Score A.
Find Row in **Table C**.

Score A

Scoring:
1 = negligible risk
2 or 3 = low risk, change may be needed
4 to 7 = medium risk, further investigation, change soon
8 to 10 = high risk, investigate and implement change
11+ = very high risk, implement change

SCORES

Table A

		Neck											
		1				2				3			
	Legs	1	2	3	4	1	2	3	4	1	2	3	4
Trunk Posture Score	1	1	2	3	4	1	2	3	4	3	3	5	6
	2	2	3	4	5	3	4	5	6	4	5	6	7
	3	2	4	5	6	4	5	6	7	5	6	7	8
	4	3	5	6	7	5	6	7	8	6	7	8	9
	5	4	6	7	8	6	7	8	9	7	8	9	9

Table B

		Lower Arm					
		1			2		
	Wrist	1	2	3	1	2	3
Upper Arm Score	1	1	2	2	1	2	3
	2	1	2	3	2	3	4
	3	3	4	5	4	5	5
	4	4	5	5	5	6	7
	5	6	7	8	7	8	8
	6	7	8	8	8	9	9

Table C

Score A (score from table A +load/force score)	Score B, (table B value +coupling score)											
	1	2	3	4	5	6	7	8	9	10	11	12
1	1	1	1	2	3	3	4	5	6	7	7	7
2	1	2	2	3	4	4	5	6	6	7	7	8
3	2	3	3	3	4	5	6	7	7	8	8	8
4	3	4	4	4	5	6	7	8	8	9	9	9
5	4	4	4	5	6	7	8	8	9	9	9	9
6	6	6	6	7	8	8	9	9	10	10	10	10
7	7	7	7	8	9	9	9	10	10	11	11	11
8	8	8	8	9	10	10	10	10	10	11	11	11
9	9	9	9	10	10	10	11	11	11	12	12	12
10	10	10	10	11	11	11	11	12	12	12	12	12
11	11	11	11	11	12	12	12	12	12	12	12	12
12	12	12	12	12	12	12	12	12	12	12	12	12

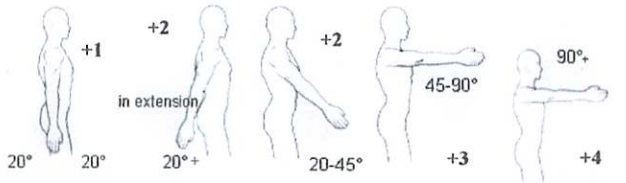
Table C Score + Activity Score

=

Final REBA Score

B. Arm and Wrist Analysis

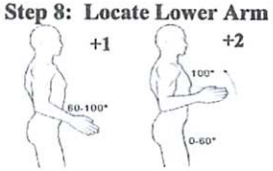
Step 7: Locate Upper Arm Position:



Step 7a: Adjust…
If shoulder is raised: +1
If upper arm is abducted: +1
If arm is supported or person is leaning: -1

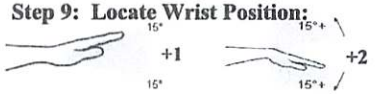
Upper Arm Score

Step 8: Locate Lower Arm Position:



Lower Arm Score

Step 9: Locate Wrist Position:



Wrist Score

Step 9a: Adjust…
If wrist is bent from midline or twisted : Add +1

Step 10: Look-up Posture Score in Table B

Using values from steps 7-9 above, locate score in Table B

Posture Score B

+

Step 11: Add Coupling Score

Well fitting Handle and mid rang power grip, ***good: +0***
Acceptable but not ideal hand hold or coupling acceptable with another body part, ***fair: +1***
Hand hold not acceptable but possible, ***poor: +2***
No handles, awkward, unsafe with any body part, ***Unacceptable: +3***

Coupling Score

=

Step 12: Score B, Find Column in Table C

Add values from steps 10 &11 to obtain Score B. Find column in **Table C** and match with Score A in row from step 6 to obtain Table C Score.

Score B

Step 13: Activity Score

+1 1 or more body parts are held for longer than 1 minute (static)
+1 Repeated small range actions (more than 4x per minute)
+1 Action causes rapid large range changes in postures or unstable base

Task name: _____ Reviewer: _____ Date: _____/_____/_____

provided by Practical Ergonomics
rbarker@ergosmart.com (816) 444-1667

Quick Exposure Check (QEC)

QEC has been designed to:

- assess the changes in exposure to musculoskeletal risk factors of the back, shoulders and arms, hands and wrists, and neck before and after an ergonomic intervention
- involve the practitioner (i.e. the observer) who conducts the assessment, and the worker who has direct experience of the task
- indicate change in exposure scores following an intervention

The QEC Guide gives more detailed information about each question and the background to QEC.

Worker's name: _____

Worker's job title: _____

Task: _____

Assessment conducted by: _____

Date: _____ Time: _____

Action(s) required: _____

For more information on the Quick Exposure Check contact:
The Robens Centre for Health Ergonomics
European Institute of Health and Medical Sciences
University of Surrey, Guildford GU2 7TE
Telephone 01483 689 213
www.surrey.ac.uk/robens/erg

Robens UniS

Worker's name _____ Date _____

Observer's Assessment

Back

A When performing the task, is the back
(select worse case situation)

A1 Almost neutral?
A2 Moderately flexed or twisted or side bent?
A3 Excessively flexed or twisted or side bent?

B Select ONLY ONE of the two following task options:

EITHER

For seated or standing stationary tasks. Does the back remain in a static position most of the time?

B1 No
B2 Yes

OR

For lifting, pushing/pulling and carrying tasks (i.e. moving a load). Is the movement of the back

B3 Infrequent (around 3 times per minute or less)?
B4 Frequent (around 8 times per minute)?
B5 Very frequent (around 12 times per minute or more)?

Shoulder/Arm

C When the task is performed, are the hands
(select worse case situation)

C1 At or below waist height?
C2 At about chest height?
C3 At or above shoulder height?

D Is the shoulder/arm movement

D1 Infrequent (some intermittent movement)?
D2 Frequent (regular movement with some pauses)?
D3 Very frequent (almost continuous movement)?

Wrist/Hand

E Is the task performed with
(select worse case situation)

E1 An almost straight wrist?
E2 A deviated or bent wrist?

F Are similar motion patterns repeated

F1 10 times per minute or less?
F2 11 to 20 times per minute?
F3 More than 20 times per minute?

Neck

G When performing the task, is the head/neck bent or twisted?

G1 No
G2 Yes, occasionally
G3 Yes, continuously

Worker's Assessment

Workers

H Is the maximum weight handled MANUALLY BY YOU in this task?

H1 Light (5 kg or less)
H2 Moderate (6 to 10 kg)
H3 Heavy (11 to 20kg)
H4 Very heavy (more than 20 kg)

J On average, how much time do you spend per day on this task?

J1 Less than 2 hours
J2 2 to 4 hours
J3 More than 4 hours

K When performing this task, is the maximum force level exerted by one hand?

K1 Low (e.g. less than 1 kg)
K2 Medium (e.g. 1 to 4 kg)
K3 High (e.g. more than 4 kg)

L Is the visual demand of this task

L1 Low (almost no need to view fine details)?
*L2 High (need to view some fine details)?

* *If High, please give details in the box below*

M At work do you drive a vehicle for

M1 Less than one hour per day or Never?
M2 Between 1 and 4 hours per day?
M3 More than 4 hours per day?

N At work do you use vibrating tools for

N1 Less than one hour per day or Never?
N2 Between 1 and 4 hours per day?
N3 More than 4 hours per day?

P Do you have difficulty keeping up with this work?

P1 Never
P2 Sometimes
*P3 Often

* *If Often, please give details in the box below*

Q In general, how do you find this job

Q1 Not at all stressful?
Q2 Mildly stressful?
*Q3 Moderately stressful?
*Q4 Very stressful?

* *If Moderately or Very, please give details in the box below*

* *Additional details for L, P and Q if appropriate*

*** L**

*** P**

*** Q**

Exposure Scores Worker's name _____ Date _____

Back

Back Posture (A) **& Weight** (H)

	A1	A2	A3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 1

Back Posture (A) **& Duration** (J)

	A1	A2	A3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 2

Duration (J) **& Weight** (H)

	J1	J2	J3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 3

Now do **ONLY** 4 if static
OR 5 and 6 if manual handling

Static Posture (B) **& Duration** (J)

	B1	B2
J1	2	4
J2	4	6
J3	6	8

Score 4

Frequency (B) **& Weight** (H)

	B3	B4	B5
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 5

Frequency (B) **& Duration** (J)

	B3	B4	B5
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 6

Total score for Back
Sum of scores 1 to 4 **OR**
Scores 1 to 3 plus 5 and 6 _____

Shoulder/Arm

Height (C) **& Weight** (H)

	C1	C2	C3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 1

Height (C) **& Duration** (J)

	C1	C2	C3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 2

Duration (J) **& Weight** (H)

	J1	J2	J3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 3

Frequency (D) **& Weight** (H)

	D1	D2	D3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 4

Frequency (D) **& Duration** (J)

	D1	D2	D3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 5

Total score for Shoulder/Arm
Sum of Scores 1 to 5 _____

Wrist/Hand

Repeated Motion (F) **& Force** (K)

	F1	F2	F3
K1	2	4	6
K2	4	6	8
K3	6	8	10

Score 1

Repeated Motion (F) **& Duration** (J)

	F1	F2	F3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 2

Duration (J) **& Force** (K)

	J1	J2	J3
K1	2	4	6
K2	4	6	8
K3	6	8	10

Score 3

Wrist Posture (E) **& Force** (K)

	E1	E2
K1	2	4
K2	4	6
K3	6	8

Score 4

Wrist Posture (E) **& Duration** (J)

	E1	E2
J1	2	4
J2	4	6
J3	6	8

Score 5

Total score for Wrist/Hand
Sum of Scores 1 to 5 _____

Neck

Neck Posture (G) **& Duration** (J)

	G1	G2	G3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 1

Visual Demand (L) **& Duration** (J)

	L1	L2
J1	2	4
J2	4	6
J3	6	8

Score 2

Total score for Neck
Sum of Scores 1 to 2 _____

Driving

M1	M2	M3
1	4	9

Total for Driving _____

Vibration

N1	N2	N3
1	4	9

Total for Vibration _____

Work pace

P1	P2	P3
1	4	9

Total for Work pace _____

Stress

Q1	Q2	Q3	Q4
1	4	9	16

Total for Stress _____

Worker's name _____ Date _____

Observer's Assessment

Back

A When performing the task, is the back
(select worse case situation)

A1 ☐ Almost neutral?
A2 ☐ Moderately flexed or twisted or side bent?
A3 ☐ Excessively flexed or twisted or side bent?

B Select ONLY ONE of the two following task options:

EITHER

For seated or standing stationary tasks. Does the back remain in a static position most of the time?

B1 ☐ No
B2 ☐ Yes

OR

For lifting, pushing/pulling and carrying tasks (i.e. moving a load). Is the movement of the back

B3 ☐ Infrequent (around 3 times per minute or less)?
B4 ☐ Frequent (around 8 times per minute)?
B5 ☐ Very frequent (around 12 times per minute or more)?

Shoulder/Arm

C When the task is performed, are the hands
(select worse case situation)

C1 ☐ At or below waist height?
C2 ☐ At about chest height?
C3 ☐ At or above shoulder height?

D Is the shoulder/arm movement

D1 ☐ Infrequent (some intermittent movement)?
D2 ☐ Frequent (regular movement with some pauses)?
D3 ☐ Very frequent (almost continuous movement)?

Wrist/Hand

E Is the task performed with
(select worse case situation)

E1 ☐ An almost straight wrist?
E2 ☐ A deviated or bent wrist?

F Are similar motion patterns repeated

F1 ☐ 10 times per minute or less?
F2 ☐ 11 to 20 times per minute?
F3 ☐ More than 20 times per minute?

Neck

G When performing the task, is the head/neck bent or twisted?

G1 ☐ No
G2 ☐ Yes, occasionally
G3 ☐ Yes, continuously

* *Additional details for L, P and Q if appropriate*

*** L**

*** P**

*** Q**

Worker's Assessment

Workers

H Is the maximum weight handled MANUALLY BY YOU in this task?

H1 ☐ Light (5 kg or less)
H2 ☐ Moderate (6 to 10 kg)
H3 ☐ Heavy (11 to 20kg)
H4 ☐ Very heavy (more than 20 kg)

J On average, how much time do you spend per day on this task?

J1 ☐ Less than 2 hours
J2 ☐ 2 to 4 hours
J3 ☐ More than 4 hours

K When performing this task, is the maximum force level exerted by one hand?

K1 ☐ Low (e.g. less than 1 kg)
K2 ☐ Medium (e.g. 1 to 4 kg)
K3 ☐ High (e.g. more than 4 kg)

L Is the visual demand of this task

L1 ☐ Low (almost no need to view fine details)?
*L2 ☐ High (need to view some fine details)?

* *If High, please give details in the box below*

M At work do you drive a vehicle for

M1 ☐ Less than one hour per day or Never?
M2 ☐ Between 1 and 4 hours per day?
M3 ☐ More than 4 hours per day?

N At work do you use vibrating tools for

N1 ☐ Less than one hour per day or Never?
N2 ☐ Between 1 and 4 hours per day?
N3 ☐ More than 4 hours per day?

P Do you have difficulty keeping up with this work?

P1 ☐ Never
P2 ☐ Sometimes
*P3 ☐ Often

* *If Often, please give details in the box below*

Q In general, how do you find this job

Q1 ☐ Not at all stressful?
Q2 ☐ Mildly stressful?
*Q3 ☐ Moderately stressful?
*Q4 ☐ Very stressful?

* *If Moderately or Very, please give details in the box below*

Exposure Scores Worker's name _____ Date _____

Back

Back Posture (A) **& Weight** (H)

	A1	A2	A3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 1

Back Posture (A) **& Duration** (J)

	A1	A2	A3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 2

Duration (J) **& Weight** (H)

	J1	J2	J3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 3

Now do **ONLY** 4 if static
OR 5 and 6 if manual handling

Static Posture (B) **& Duration** (J)

	B1	B2
J1	2	4
J2	4	6
J3	6	8

Score 4

Frequency (B) **& Weight** (H)

	B3	B4	B5
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 5

Frequency (B) **& Duration** (J)

	B3	B4	B5
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 6

Total score for Back
Sum of scores 1 to 4 **OR**
Scores 1 to 3 plus 5 and 6 _____

Shoulder/Arm

Height (C) **& Weight** (H)

	C1	C2	C3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 1

Height (C) **& Duration** (J)

	C1	C2	C3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 2

Duration (J) **& Weight** (H)

	J1	J2	J3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 3

Frequency (D) **& Weight** (H)

	D1	D2	D3
H1	2	4	6
H2	4	6	8
H3	6	8	10
H4	8	10	12

Score 4

Frequency (D) **& Duration** (J)

	D1	D2	D3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 5

Total score for Shoulder/Arm
Sum of Scores 1 to 5 _____

Wrist/Hand

Repeated Motion (F) **& Force** (K)

	F1	F2	F3
K1	2	4	6
K2	4	6	8
K3	6	8	10

Score 1

Repeated Motion (F) **& Duration** (J)

	F1	F2	F3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 2

Duration (J) **& Force** (K)

	J1	J2	J3
K1	2	4	6
K2	4	6	8
K3	6	8	10

Score 3

Wrist Posture (E) **& Force** (K)

	E1	E2
K1	2	4
K2	4	6
K3	6	8

Score 4

Wrist Posture (E) **& Duration** (J)

	E1	E2
J1	2	4
J2	4	6
J3	6	8

Score 5

Total score for Wrist/Hand
Sum of Scores 1 to 5 _____

Neck

Neck Posture (G) **& Duration** (J)

	G1	G2	G3
J1	2	4	6
J2	4	6	8
J3	6	8	10

Score 1

Visual Demand (L) **& Duration** (J)

	L1	L2
J1	2	4
J2	4	6
J3	6	8

Score 2

Total score for Neck
Sum of Scores 1 to 2 _____

Driving

M1	M2	M3
1	4	9

Total for Driving _____

Vibration

N1	N2	N3
1	4	9

Total for Vibration _____

Work pace

P1	P2	P3
1	4	9

Total for Work pace _____

Stress

Q1	Q2	Q3	Q4
1	4	9	16

Total for Stress _____

National Back Exchange - Portfolio of Evidenced Techniques (POETS)

These guidance notes and assessment forms are for use by the National Back Exchange technique review panels Many thanks for agreeing to participate in this evidence gathering.

Purpose

The purpose of the session is to assess manual handling techniques for assisting people to move or transfer. The information will be published in Column and other NBE publications to assist the membership in making informed decisions. The database will be built up over time to provide a significant body of evidence using recognised tools. The data will supplement research projects as these come to light.

Please note: once a technique has been chosen, collect the data BEFORE any post technique discussion, so that a consistent format can be followed.

Limitations

The review cannot be considered high level research, but rather a consensus of opinion based on an increasing body of practical evidence.

The techniques to be assessed will need to be agreed prior to the planned event to ensure that suitable equipment and conditions are available.

The technique options should be limited prior to a session, additional variations can be added at another session
The assessment is undertaken with models and not patients or service users.

The technique options should be limited prior to a session, additional variations can be added at another session The assessment is undertaken with models and not patients or service users.

Inter- assessor reliability – a benchmarking exercise must be completed, but individual's own experiences and training may have an influence on the data collection

In the early days the evidence will still only be the opinion of a few

Repeatability – the aim will be to mitigate this by the write up of clear instructions followed by including other assessor groups to re-assess the techniques without access to previous data.

Roles

Facilitator – oversees the technique and aims to keep all participants safe, correct data collection and will write up the technique data using the agreed format. They will ensure that all forms equipment and information is supplied in readiness for the POET. They will also facilitate discussion after the technique has been completed and e mail the data to Column Editor.

Model – this is a volunteer from the group who will be required to give feedback to the assessors on their experience of the technique. The model should remain the same for a series of POETs eg slide techniques up the bed, but can changed for different techniques (eg if the group moves on to assess off floor techniques)

Handlers – the volunteers who complete the handling technique. They will be given a technique to complete and explanation given and an opportunity to familiarize themselves with the method. At the start of the assessment it is not their role to criticize the method chosen, but must be given the opportunity to decline if they feel they cannot manage or feel unsafe. They will be asked questions by the assessors related to the technique, eg effort

Assessors – there will usually be 2- 3 looking at specific aspects of the technique. It would be expected that the assessors continue to use the same tools throughout the session

Scribe – this person records the data supplied by the assessors and checks the form for accurate completion

It is expected that 5/6 people are required for a POET, but will be dependent on the technique and number of aspects to be assessed.

- All participants must fulfil the specified criteria for their particular role.
- The same model should be used for all comparisons within a technique 'family'
- Assessors must declare any health needs or concerns they have to the facilitator, who may then adjust the roles of the assessors in the group
- All participants must be familiar with the tools used and if not training will be required and need to be planned for by the facilitator.
- A benchmarking exercise MUST take place before the assessment to check for inter assessor reliability and address any issues raised. This should be a simple task eg rolling a person FIM level 4 onto their side

The techniques chosen may have been at the request of the Managing Editor of Column and certainly with the knowledge of the Managing Editor in order to plan publication in the Column. This is to facilitate planning. Permission to take photographs is required and will be obtained by the facilitator. These become the property of NBE and may be used in NBE publications or presentations. Third parties may be licensed to use the NBE material.

FORMAT FOR EACH TECHNIQUE

The following is the table of information on each piece of data collected. Please make sure all sheets are stapled together and each page has the reference and include 'page? of ?' on each page.

Page 1

Reference Nr	Please use the reference given by the facilitator, see the appendix
Date	Please record using the following format: 06/05/2015
Venue	Please record the name of the venue used
Technique (including equipment used)	A brief description or name of the technique and any equipment used. Full details may need to be supplied on a separate sheet. If so please cross reference. List the instructions given to a client to encourage independence, or the manual help / equipment used. Please give precise equipment information e.g make and model of a hoist, sling make, model and size with attachments used. The manufacturers instructions should be available on the day for reference and these should be followed. If the technique requires departure from these requirements this must be recorded and it will be necessary to have a discussion with the manufacturer prior to sending the data to the Column with their statement attached to the review. The editor will then give the companies an opportunity to comment on the review before publication.
Minimum space requirements	An assessor should record the minimum amount of space required for the task to take place. Record in squared metres
Height/weight of model	This should be requested from the model and the units recorded in centimetres and kilogrammes. Do not include any names in order to comply with data protection
Model comfort	This will be completed by an assessor by asking the model, where the scenario requires the model to be unable to indicate this, the assessor will give the score with rationale in the comments box, followed up by confirmation from the model. A 1 – 10 scale will be used 1 indicates very uncomfortable 10 very comfortable
Model activity	This will be completed by an assessor using a 1 – 10 scale. 1 being no activity (passive), 10 maximum activity. The purpose is to assess how much the model can be involved.
Model Ability (Functional Independence Measure FIM)	FIM ranges from 7 to 1. Please refer to the FIM chart in the appendix. This is set at the beginning of the assessment of the technique and should be consistent with the technique used E.g. avoid setting the FIM as 1 (completely dependent) for a Standaid assessment
Risk Matrix (model)	Please refer to risk matrix chart in the appendix to assess the risk to the model
Risk considered	Note the risks you are referring to rather than being generalised e.g. risk of the model falling or skin shearing. Only the list the main risk
Risk Matrix (handler)	Please refer to risk matrix chart in the appendix to assess the risk to the handler(s). This section is not expected to include risks related to an individual's own health needs, but general risks to any handler.
Risk considered	Note the risks you are referring to rather than being generalised e.g. risk of the handler holding a stooped posture or risk of excessive force on the wrist. Only the list the main risk
Handler 1 Effort	Mark the effort required on the template where 6 is minimal effort and 20 is maximal effort. Refer to the Borg chart in the appendix. Circle only one specific number.
Handler 2 Effort	Mark the effort required on the template where 6 is minimal effort and 20 is maximal effort. Refer to the Borg chart in the appendix. Circle only one specific number.
Handler 1 Skill	Refer to the Benner competency model in the appendix. This refers to the skill level that the assessor assesses is required to complete the technique in a timely and safe manner. Circle only one.
Handler 2 Skill	Refer to the Benner competency model in the appendix. This refers to the skill level that the assessor assesses is required to complete the technique in a timely and safe manner. Handler 1 and Handler 2 skill level can be the same or different. Circle only one
Number of Handlers	Circle the number of handlers used
QEC tool	Use the QEC assessment sheet and transfer data from the sheet. Attach the QEC form to the POET assessment. Please note that driving and vibration have note been included in the

	summary. If they are required, please add manually.
Page 2	
Reference Number	Please repeat the reference given by the facilitator on the second page
REBA	Use the REBA assessment sheet and transfer data from the sheet. Attach the REBA form to the POET assessment. Please ensure it is clear which photo was used for the REBA.
Main risk areas	Often in a REBA assessment there is one part of the body where the intermediate score is higher e.g. angle of the trunk or coupling. If this is the case please include the part of the body in this section to aid the data collector. If this does not apply mark 'none' in the box
Time	An assessor records the length of time the technique takes. It must be decided before commenced whether it will include an explanation and/or preparation. The assessor may need to remind the handlers to complete the task and discuss later in order to not affect the task time.
Time Includes?	Please circle the choice that has been set by the facilitator
Any variations discussed	It is important to carry out the POET along the guidelines set at the part. After the technique has been completed, it may spark discussion on alternatives. Please list. Any variations that arise because of the level of client dependence should be listed as another technique (unless a very subtle variation). Judgement will be required by the facilitator – please justify all your decisions. It may be more appropriate to undertake additional assessment than provide too many variations
Dangers and Precautions	Completing the technique may lead to discussion on possible dangers. Please include a summary of this discussion. This should include both risks to model and to the handler, with rationale included.
Evidence for the technique?	Please provide a comprehensive list of research evidence to back up what you have described including the equipment– or acknowledge the lack of evidence and refer to documented professional opinion. Evidence (when present) should be available on the day for the techniques being considered
Brief profile of handler 1	Include up to 50 words on the handlers own experience. E.g 'physiotherapist with 35 years of experiencing in manual handling of adults' or 'newly qualified nurse with a special interest in intensive care nursing'.
Handler 1's assessment of his/her skill for this task	This is an assessment of the handler's own skill level for the technique E.g it is a technique they use on a daily basis, or they rarely use the technique. Use the Benner competency model in the appendix
Brief profile of handler 2	Include up to 50 words on the handlers own experience. E.g 'physiotherapist with 35 years of experiencing in manual handling of adults' or 'newly qualified nurse with a special interest in intensive care nursing'.
Handler 2's assessment of his/her skill for this task	This is an assessment of the handler's own skill level for the technique. E.g it is a technique they use on a daily basis, or they rarely use the technique. Use the Benner competency model in the appendix
Additional notes/comments	Please add any comments that may be useful from completing the technique

Please note

Description of the techniques, including a photographs of the technique should be attached to the POET. Mark on the photo the reference number, followed by (a), for the first photo (b) for the second etc. Pictures need to be high resolution, preferably with the model in different coloured clothing to the handlers for clarity. Avoid busy backgrounds

Reference Numbers for Techniques

Reference numbers are made up of category, a number defining the group within a category (this will de defined as the technique reviews are set up), a letter defining the technique:

For example a slide up the bed with a slide sheet and 2 people standing at the head end of a bed would be:

MB1A

Categories:

Moving within in bed	MB	Lateral transfers	LT
Lying to sitting	LS	Standing transfers	ST
Full body lifts	FB	Off floor	OF
Evacuation/emergency handling	EE		

Moving within bed (MB)

Moving up the bed	1
Sitting up in bed	2
Rolling in bed	3
Repositioning in bed	4

Lateral Transfers (LT)

From lying to lying	1
From sitting to sitting	2

Lying to sitting (LS)

Without equipment	1
With equipment	2

Standing transfers (ST)

Without equipment	1
With equipment	2

Full Body Lifts (FB)

Without equipment	1
With equipment	2

Off floor (OF)

Without equipment	1
With equipment	2

Evacuation/emergency lifting (EE)

Without equipment	1
With equipment	2

Functional Independence Measurement

REF: Granger CV, Hamilton BB. The Functional Independence Measure. In: McDowell I, Newell C, eds. *Measuring Health: A Guide to Rating Scales and Questionnaires.* Second ed. New York: Oxford University Press; 1987:115-121.

DESCRIPTION OF THE LEVELS OF FUNCTION AND THEIR SCORES		
INDEPENDENT Another person is not required for the activity (NO HELPER).		
Score		
7	***Complete Independence***	All of the tasks described as making up the activity are typically performed safely, without modification, assistive devices, or aids, and within a reasonable time
6	***Modified Independence***	Activity requires any one or more than one of the following: an assistive device, more than reasonable time, or there are safety (risk) considerations.
DEPENDENT Another person is required for either supervision or physical assistance in order for the activity to be performed, or it is not performed. (REQUIRES HELPER)		
5	***Supervision or Setup***	Subject requires no more help than standby, cuing or coaxing, without physical contact. Or, helper sets up needed items or applies orthoses.
4	***Minimal Contact Assistance***	With physical contact the subject requires no more help than touching, and subject expends 75% or more of the effort.
3	***Moderate Assistance***	Subject requires more help than touching, or expends half (50%) or more (up to 75%) of the effort.
COMPLETE DEPENDENCE **The subject expends less than half (less than 50%) of the effort. Maximal or total assistance is required, or the activity is not performed.**		
2	***Maximal Assistance***	Subject expends less than 50% of the effort, but at least 25%.
1	***Total Assistance***	Subject expends less than 25% of the effort.

Risk Matrix

It is important that the assessor reads off likelihood against consequences, rather than guessing the level without reference to the axes.

Likelihood Label	Consequences Label				
	Negligible (no injury or very minor injury requiring no treatment)	Minor (minimal short term injury with minimal treatment)	Moderate (injury requiring short term treatment)	Major (injury requiring longer term or significant treatment)	Severe/catastrophic (long term significant irreversible effects)
Almost certain	Low	Medium	High	Very High	Very High
Likely	Low	Medium	High	High	Very High
Possible	Low	Medium	Medium	High	High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High
Identify the risk being considered					

Handler Effort (Borg)

6 least effort
7 very, very light
8
9 very light
10
11 fairly light
12
13 somewhat hard
14
15 hard
16
17 very hard
18
19 very, very hard
20 maximal effort

Perceived exertion and pain scales, Gunnar Borg, 1998

Benner's Stages of Clinical Competence

Benner's Application to Nursing of the Dreyfus Model of Skill Acquisition:

The Dreyfus model posits that in the acquisition and development of a skill, a student passes through five levels of proficiency: novice, advanced beginner, competent, proficient, and expert. These different levels reflect changes in three general aspects of skilled performance:

1. One is a movement from reliance on abstract principles to the use of past concrete experience as paradigms.
2. The second is a change in the learner's perception of the demand situation, in which the situation is seen less and less as a compilation of equally relevant bits, and more and more as a complete whole in which only certain parts are relevant.
3. The third is a passage from detached observation to involved performer. The performer no longer stands outside the situation but is now engaged in the situation.

Think of your own areas of experience in nursing. Rate your areas of nursing on an "expertise scale" of 1 to 5, with 1 being "novice" and 5 being "expert" according to the descriptions below:

- **Stage 1: Novice**

  Beginners have had no experience of the situations in which they are expected to perform. Novices are taught rules to help them perform. The rules are context-free and independent of specific cases; hence the rules tend to be applied universally. The rule-governed behavior typical of the novice is extremely limited and inflexible. As such, novices have no "life experience" in the application of rules.
  "Just tell me what I need to do and I'll do it."

- **Stage 2: Advanced Beginner**

  Advanced beginners are those who can demonstrate marginally acceptable performance, those who have coped with enough real situations to note, or to have pointed out to them by a mentor, the recurring meaningful situational components. These components require prior experience in actual situations for recognition. Principles to guide actions begin to be formulated. The principles are based on experience.

- **Stage 3: Competent**

  Competence, typified by the nurse who has been on the job in the same or similar situations two or three years, develops when the nurse begins to see his or her actions in terms of long-range goals or plans of which he or she is consciously aware. For the competent nurse, a plan establishes a perspective, and the plan is based on considerable conscious, abstract, analytic contemplation of the problem. The conscious, deliberate planning that is characteristic of this skill level helps achieve efficiency and organization. The competent nurse lacks the speed and flexibility of the proficient nurse but does have a feeling of mastery and the ability to cope with and manage the many contingencies of clinical nursing. The competent person does not yet have enough experience to recognize a situation in terms of an overall picture or in terms of which aspects are most salient, most important.

- **Stage 4: Proficient**

The proficient performer perceives situations as wholes rather than in terms of chopped up parts or aspects, and performance is guided by maxims. Proficient nurses understand a situation as a whole because they perceive its meaning in terms of long-term goals. The proficient nurse learns from experience what typical events to expect in a given situation and how plans need to be modified in response to these events. The proficient nurse can now recognize when the expected normal picture does not materialize. This holistic understanding improves the proficient nurse's decision making; it becomes less labored because the nurse now has a perspective on which of the many existing attributes and aspects in the present situation are the important ones. The proficient nurse uses maxims as guides which reflect what would appear to the competent or novice performer as unintelligible nuances of the situation; they can mean one thing at one time and quite another thing later. Once one has a deep understanding of the situation overall, however, the maxim provides direction as to what must be taken into account. Maxims reflect nuances of the situation.

- **Stage 5: The Expert**

The expert performer no longer relies on an analytic principle (rule, guideline, maxim) to connect her or his understanding of the situation to an appropriate action. The expert nurse, with an enormous background of experience, now has an intuitive grasp of each situation and zeroes in on the accurate region of the problem without wasteful consideration of a large range of unfruitful, alternative diagnoses and solutions. The expert operates from a deep understanding of the total situation. The chess master, for instance, when asked why he or she made a particularly masterful move, will just say: "Because it felt right; it looked good." The performer is no longer aware of features and rules;' his/her performance becomes fluid and flexible and highly proficient. This is not to say that the expert never uses analytic tools. Highly skilled analytic ability is necessary for those situations with which the nurse has had no previous experience. Analytic tools are also necessary for those times when the expert gets a wrong grasp of the situation and then finds that events and behaviors are not occurring as expected When alternative perspectives are not available to the clinician, the only way out of a wrong grasp of the problem is by using analytic problem solving.

References:

Benner, P. (1984). From novice to expert: Excellence and power in clinical nursing practice. Menlo Park: Addison-Wesley, pp. 13-34

Dreyfus, H. and Dreyfus, S. (1977) "A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition". University of California-Berkeley

Dreyfus, H.L. and Dreyfus, S.E. (1986). Mind over Machine, New York: Free Press.

QEC Tool (see separate sheets)

This is a posture analysis tool that includes the views of the handler. It was developed by the Robens Centre for Health Ergonomics. A review can be obtained from the HSE, Further Development of the usability and validity of the Quick Exposure Check, HSE, 2006. The tool uses a one page assessment. The form is available from the Robens Institute or an example on line at http://qec.freeiz.com/QEC-checklist&scoresheet.pdf

REBA (see separate sheets)

This is a posture assessment tool where the assessor reviews posture using a photograph. This assessment does not require input from the handler. Traditionally the photograph has been taken at the perceived 'worst' point of the procedure. Although wherever possible multiple assessments should be made at specific and timed intervals. An app has been created for use on mobile phones, which may help in the data collection and documentation.

Weight Conversion Table

Kgs	Stone-Pounds(UK)	Lbs (US)
48	7 Stone 8 lb	106
50	7 Stone 12 lb	110
52	8 Stone 3 lb	115
54	8 Stone 7 lb	119
56	8 Stone 11 lb	123
58	9 Stone 2 lb	128
60	9 Stone 6 lb	132
62	9 Stone 11 lb	137
64	10 Stone 1 lb	141
66	10 Stone 6 lb	146
68	10 Stone 10 lb	150
70	11 Stone 0 lb	154
72	11 Stone 5 lb	159
74	11 Stone 9 lb	163
76	12 Stone 0 lb	168
78	12 Stone 4 lb	172
80	12 Stone 8 lb	176
82	12 Stone 13 lb	181
84	13 Stone 3 lb	185
86	13 Stone 8 lb	190
88	13 Stone 12 lb	194
90	14 Stone 2 lb	198
92	14 Stone 7 lb	203
94	14 Stone 11 lb	207
96	15 Stone 2 lb	212
98	15 Stone 6 lb	216
100	15 Stone 10 lb	220
105	16 Stone 7 lb	231
110	17 Stone 5 lb	243
115	18 Stone 2 lb	254
120	18 Stone 13 lb	265

Height Conversion Table

Imperial	Metric
4'8"	142
4'9"	144.5
4'10"	147
4'11"	150
5'	152.5
5'1"	155
5'2"	157.5
5'3"	160
5'4"	162.5
5'5"	165
5'6"	167.5
5'7"	170
5'8"	172.5
5'9"	175
5'10"	177.5
5'11"	180
6'	183
6'1"	185.5
6'2"	188
6'3"	190.5

lbs / 2.2 = kilograms
kg x 2.2 = pounds

cm / 30.48 = feet
cm / 2.54 = inches

1 foot = 30.48 cm
1 inch = 2.54 cm
1 lbs = 0.4359 kg
1 cm = 0.3937 inches
1 kg = 2.2046 lbs

Rolling with 2 people using 2 pillows

REBA picture