

Non-stun Slaughter : Key facts

The EU and UK require all livestock at abattoirs to be stunned (rendered unconscious and insensible to pain) before slaughter. Non-stun slaughter is banned in several countries but in the UK it is permitted for religious slaughter for the food of Jews and Muslims only. UK legislation (WATOK) requires that for non-stun slaughter, each animal has a rapid, uninterrupted cut to the neck by hand-held knife to sever both carotid arteries and jugular veins. The animal must be restrained suitably and be left still during exsanguination for a minimum defined time post-cut (p11).

Several studies have measured time to loss of consciousness (and therefore sensibility to pain and distress) through a variety of methods including loss of posture. Following non-stun slaughter and across several studies, poultry reportedly took 12-15 seconds following throat cut before signs of unconsciousness were apparent. In sheep this was between 2-14 seconds but downward eye rotation only occurred at 15 seconds. In cattle loss of posture was varied and in some cases extended, taking 11-265 seconds. Cattle time to collapse may be longer due to a unique alternative blood supply to the brain (p22).



The number of sheep and goats slaughtered without stunning has doubled in the last 7 years. In 2018 just over a quarter (27%) sheep/goats were not stunned before slaughter, estimated annually as 3.1 million animals. A Food Standards Agency survey for England and Wales estimates that 120 million poultry and 23 thousand cattle will also be slaughtered without an effective stun in 2018 (p15). A more detailed survey was carried out in Spring 2018, results are pending.

Muslim Halal Slaughter

- The method of slaughter used by the Muslim community is called Dhabihah, but is commonly referred to as halal slaughter (p13).
- The majority of red meat (63% sheep, 75% cattle) slaughtered by Dhabihah is stunned (reversibly pre-stunned), but the remainder of halal meat is non-stun (p13).

Jewish Shechita Slaughter

- The method of slaughter used by the Jewish community is called Shechita and meat labelled Kosher (p12).
- All Shechita slaughter is non-stun.
- Approximately 70% of meat produced by Shechita slaughter is sold on the general market without Kosher labelling (p13).

Several Food Assurance bodies including Assured Food Standards (Red Tractor), Soil Association Organic and RSPCA Assured (previously Freedom Foods) do not allow non-stun slaughter meat to be accredited (p30).

The government does not hold data on what percentage of meat from non-stun religious slaughter is exported.

VPRF FACTFILE:

Non-stun Slaughter

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Declaration of interest: This document has been prepared by the above authors, who declare they would wish to see all animals stunned before slaughter.

Statement of intention: This document is intended for the public, politicians and professionals and aims to present an unbiased, factual and up-to-date account of the current information available on non-stun slaughter.

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EC Regulation and UK Law

European Law

1. The law governing the protection of animals at the time of killing is set out in Council Regulation (EC) 1099/2009 the Protection of Animals at the Time of Killing (PATOK) and applies in all EU Member States since it came into effect on 1st January 2013.¹
2. In Great Britain, the Welfare of Animals at the Time of Killing (WATOK) Regulations came into effect in Scotland in 2012², in both Wales³ and Northern Ireland⁴ in 2014 and in England in 2015⁵.
3. The UK voted to leave the European Union (EU) during a referendum held on the 23rd June 2016. The process of leaving the UK is expected to take at least two years with a proposed leaving date of 29th March 2019. In the meantime current legislation will continue to apply and existing EU regulations translated into UK law under the EU Withdrawal Bill, which is still under debate.
4. On the other hand, Member States have to comply with the EU Charter of Fundamental Rights and the restriction on slaughter without stunning shall not affect the freedom of religion, which is enshrined in the Charter. Such an assessment can only be done on a case-by-case basis according to the Commission.
5. PATOK requires that animals are stunned before slaughter. In Annex 1 of PATOK the accepted stunning methods are listed and parameters are specified for each method and species, an abridged version is shown in **Table 1** (p10). Some methods of stunning are not authorized due to insufficient scientific evidence demonstrating that they can provide reliable and efficient stunning under commercial conditions.⁶ Cutting of the throat is not listed as a recognised stunning method.

¹ Council Regulation (EC) 1099/2009 of the 24 September 2009 on the protection of animals at the time of killing. Official Journal of the European Communities. L 303/1, 18.11.2009. [Online]. Available: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:303:0001:0030:EN:PDF> [Accessed: 09/04/2014].

² *The Welfare of Animals at the Time of Killing (Scotland) Regulations 2012*. SI 2012/321. UK: HMSO; 2012. [Online] Available: <http://www.legislation.gov.uk/ssi/2012/321/contents/made> [Accessed: 29/07/14].

³ *The Welfare of Animals at the Time of Killing (Wales) Regulations 2014*. SI 2014/951 (W.92). UK: HMSO; 2014. [Online] Available: <http://www.legislation.gov.uk/wsi/2014/951/contents/made> [Accessed: 29/07/14].

⁴ *The Welfare of Animals at the Time of Killing Regulations (Northern Ireland) 2014*. SI 2014/107. UK: HMSO; 2014. [Online] Available: <http://www.legislation.gov.uk/nisr/2014/107/contents/made> [Accessed: 29/07/14].

⁵ *The Welfare of Animals at the Time of Killing Regulations (England) 2015*. SI 2015/1782. UK: HMSO; 2015. [Online] Available <http://www.legislation.gov.uk/uksi/2015/1782/contents/made> [accessed 10/11/2015]

⁶ European Commission (2017) Preparation of best practices on the protection of animals at the time of killing doi: 10.2875/15243 <https://www.slu.se/globalassets/ew/org/centrb/scaw/kontaktpunkt-slakt/eu-com-best-practices-slaughter-icf-report-2017.pdf>

“Animals shall only be killed after stunning in accordance with the methods and specific requirements related to the application of those methods [...]. The loss of consciousness and sensibility shall be maintained until the death of the animal.

The [stunning] methods referred to in Annex 1 which do not result in instantaneous death [...] shall be followed as quickly as possible by a procedure ensuring death such as bleeding, pithing, electrocution or prolonged exposure to anoxia.”

Paragraph 1, Article 4, Chapter II of the EC Council Reg. No. 1099/2009

6. Recital 18 and Article 4 of the PATOK allows for Member States, should they choose, to provide an exemption from pre-slaughter stunning of animals for religious purposes⁷:

“In the case of animals subject to particular methods of slaughter prescribed by religious rites, the requirements of Paragraph 1 [above] shall not apply provided the slaughter takes place in a slaughterhouse.”

Paragraph 4, Article 4, Chapter II of the EC Council Reg. No. 1099/2009

7. WATOK 2014 Regulations were due to come into force in England on 20th May 2014 but were revoked on 19th May 2014 before coming into force. After making the 2014 WATOK Regulations, the Government decided that the impact on some aspects of religious slaughter needed further consideration. The WATOK (England) 2015 Regulations differ from the 2014 WATOK Regulations in that they do not explicitly require animals which are stunned before killing in accordance with religious rites to be stunned in accordance with the parameters in Annex I of the EU Regulation (PATOK)⁸.

UK

8. The UK currently offers an exemption for religious purposes in Schedule 3 of WATOK 2015. This schedule also gives rules for humane restraint of bovines for non-stun slaughter, method of slaughter and uninterrupted bleed out times for different species (see page 11).

“No person may kill an animal in accordance with religious rites without prior stunning unless it is a sheep, goat, bovine animal or bird killed in a slaughterhouse in accordance with this Schedule”

Schedule 3, Part I, Paragraph 2, WATOK (England) Regulations 2015

“[Any bovine killed without stunning must be] individually restrained in an upright position in a restraining pen which has been approved in writing by the competent authority ... [And to be approved it must be] of such a size and design, and is able to be operated, so as to

⁷ Council Regulation (EC) 1099/2009

⁸ Explanatory Memorandum to *The Welfare of Animals at the Time of Killing Regulations (England) 2015*. [Online] Available: http://www.legislation.gov.uk/ukxi/2015/1782/pdfs/ukxiem_20151782_en.pdf [Accessed: 10/11/2015]

protect an adult bovine animal from avoidable pain, suffering, agitation, injuries or contusions while confined in it”

Schedule 3, Part II, Paragraph 3, WATOK (England) Regulations 2015

“[For all non-stun slaughter an animal “must be] killed by the severance of both its carotid arteries and jugular veins by rapid, uninterrupted movements of a hand-held knife ... [that is] undamaged and of sufficient size and sharpness”

Schedule 3, Part II, Paragraph 5 and Part III, Paragraph 7, WATOK (England) Regulations 2015

“[Where a bovine, sheep or goat is killed without stunning it must not be] shackled, hoisted or moved in any way until it is unconscious and in any event not before the expiry of (a) in the case of a sheep or a goat, a period of not less than 20 seconds; and (b) in the case of a bovine animal, a period of not less than 30 seconds... [And where a bird is killed without prior stunning] no further dressing procedure or any electrical stimulation is performed on the bird if it presents any signs of life and in any event not before the expiry of (a) in the case of a turkey or goose, a period of not less than 2 minutes; and (b) in the case of any other bird, a period of not less than 90 seconds”

Schedule 3, Part II, Paragraph 6 and Part III, Paragraph 8, WATOK (England) Regulations 2015

EU Member states and worldwide practice and trade

9. In the EU, of cattle slaughtered without stunning, most (84%) occurred in France, The Netherlands, Spain and United Kingdom, involving approximately 400 slaughterhouses.⁹
10. The following EU Member States do not allow any exemption from pre-slaughter stunning: Denmark, Malta, Slovenia, Sweden, Cyprus, Finland and Luxembourg.^{10,11} Latvia use a post-cut stun and are reported to supply non-stun meat demand in Sweden.¹² Austria, Finland, Estonia and Slovakia permit non-stun slaughter but require a post-cut stun.^{13,14} Germany require that abattoirs apply for a licence by defining the number of animals to undergo non-stun slaughter to meet local demand only.⁹ A 2017 vote in two regions of Belgium was in favour of banning non-stun slaughter from 2019, however, an exemption

⁹ L. Mirabito et al.(2015) Restraining systems for bovine animals slaughtered without stunning

https://ec.europa.eu/food/sites/food/files/animals/docs/aw_practice_slaughter_com_borest_sum_en.pdf

¹⁰ Minor, J. European Commission UK Office. Evidence to the All-party Parliamentary Group for Beef & Lamb. 10th June 2014.

¹¹ Manchi, F. European Commission UK Office. Personal Communication. July 3rd 2014.

¹² Needham, C. (2012) Religious Slaughter of Animals in the EU. Library of the European Parliament, European Union. Report No. 120375REV2.

¹³ Riigi Teataja, 'Animal Protection Act', <https://www.riigiteataja.ee/en/eli/ee/Riigikoju/act/514072016003/consolide> [accessed 30 January 2018]

¹⁴ Downing, E (2015) Religious Slaughter of Animals, House of Commons Library <http://researchbriefings.files.parliament.uk/documents/SN07108/SN07108.pdf>

was made for cattle until technological advances allow reversible stunning¹⁵. In France an argument against banning of non-stun slaughter used Human Rights legislation, results of which were that an exemption from a ban was allowed on religious grounds,¹⁶ but if an animal is still conscious after 90 seconds, then a post-cut stun must be applied. In the Netherlands, an animal that has not lost consciousness after 40 seconds must be stunned. Information on time to collapse is presented in Table 9 (p23). Lithuania legalised non-stun slaughter in 2014 aiming to increase exports to Israel.¹⁷ A ban in Poland in 2013 was overturned in 2014 but most recently a draft Bill in Poland (November 2017) proposes to ban non-stun slaughter again.¹⁸ Cyprus permit slaughter without prior stunning provided that a number of legal requirements are respected.¹⁹

11. Globally, non-stun slaughter is not permitted in Switzerland, Norway and Iceland.^{8 20} New Zealand requires all animals to be stunned before slaughter, but offers an exemption for a small fixed number of poultry and sheep for local Jewish consumption only (which receive a post-cut stun).^{21, 22} New Zealand successfully exports stunned-Halal beef and sheep meat to other countries.²³ Australia is similar in that it requires pre-cut stunning but allows an exemption for religious slaughter for the domestic market only, and utilizes a post-cut stun in these cases.
12. Future legislation: Defra in England intend to make CCTV mandatory in all slaughterhouses in 2018 following 'extremely positive reaction' to a public consultation in which 99% of 4000 respondents from the industry, welfare groups and the public were supportive²⁴. The Scottish Government will consult on the introduction of compulsory video recording of slaughter at abattoirs in Scotland to aid enforcement of welfare requirements by abattoir management and Food Standards Scotland.²⁵

¹⁵ Robert-Jan Bartunek & Tom Heneghan (March, 2017) Belgian region's plan to ban ritual slaughter upsets religious minorities; ed Richard Lough <https://uk.reuters.com/article/uk-europe-religion-belgium-slaughter/belgian-regions-plan-to-ban-ritual-slaughter-upsets-religious-minorities-idUKKBN17126N>

¹⁶ *Jewish Liturgical Association Cha'are Shalom Ve Tsedek v. France*, [European Court of Human Rights](https://www.echr.coe.int/T/HudocDatabase/ECHR/ViewDoc.aspx?i=2741795), No. 27417/95, 27/6/2000

¹⁷ Adamowski (2014), Lithuania legalises non-stun slaughter; GlobalMeat accessed through FAO's gateway to Farm Animal Welfare <http://www.fao.org/ag/againfo/themes/animal-welfare/news-detail/en/c/250716/>

¹⁸ Adamowski (2017) Polish lawmakers draft bill to ban non-stun slaughter; GlobalMeat

https://www.globalmeatnews.com/Article/2017/11/22/Polish-lawmakers-draft-bill-to-ban-non-stun-slaughter?utm_source=copyright&utm_medium=OnSite&utm_campaign=copyright [Accessed 16/01/2018]

¹⁹ Paola Sechi et al, 'Animal Welfare: Data from an Online Consultation', *Italian Journal of Food Safety*, November 2015, No 2 vol 4 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5076690/>

²⁰ Ferrari, S., Bottoni, R., (2010). *EC DIALREL Project, Deliverable 1.4, Legislation regarding religious slaughter in the EU member, candidate and associated countries.*

²¹ *The Animal Welfare Act 1999*. No 142. New Zealand Government; 1999. [Online] Available:

<http://www.legislation.govt.nz/act/public/1999/0142/latest/DLM49664.html> [Accessed:18/07/14]

²² *Animal Welfare (Commercial Slaughter) Code of Welfare 2010*. National Animal Welfare Advisory Committee; 2010. [Online] Available: <http://www.biosecurity.govt.nz/files/reg/animal-welfare/reg/codes/commercial-slaughter/commercial-slaughter-code-of-welfare.pdf> [Accessed: 18/07/14]

²³ Compassion in World Farming, Briefing – Religious Slaughter, May 2011

²⁴ Consultation outcome: Animal welfare: CCTV in slaughterhouses (11th Aug 2017)

<https://www.gov.uk/government/consultations/animal-welfare-cctv-in-slaughterhouses>

²⁵ A nation with Ambition: the Government's programme for Scotland 2017-2018 (2017)

<http://www.gov.scot/Resource/0052/00524214.pdf>

Definitions & terminology

13. It is recommended to use the term 'non-stun' slaughter rather than 'ritual' or 'religious' slaughter.
14. Stunning: any intentionally induced process which causes loss of consciousness and sensibility without pain, including any process resulting in instantaneous death.²⁶
15. Pre-cut stun: A stun prior to the throat cut.
16. Post-cut stun: A stun immediately after cutting the throat.
17. Reversible/simple stun: 'any intentionally induced process which causes loss of consciousness and sensibility without pain' that does not cause instantaneous death. Head-only electronarcosis is an accepted form of reversible stunning.²⁷
18. Porging: applicable to kosher production, is the process of removing portions of the animal that are not kosher: the blood and vessels, certain fats (chailev) & the sciatic nerve (the gid hanasheh).²⁸ Also see paragraph 37 (p12).
19. Unconsciousness: an abnormal state of lack of response to sensory stimuli, resulting from injury, illness, shock or some other bodily disorder²⁹, occurs when the brain's ability to integrate information is blocked or disrupted. In animals, loss of consciousness is functionally defined by Loss of Righting Reflex (LORR), also called Loss of Posture (LOP).
30, 31, 32
20. Insensibility: not perceptible to the senses.³¹
21. Pain: The perception of pain is defined as a conscious experience and requires nerve impulses from peripheral nociceptors to reach a functioning conscious cerebral cortex and the associated subcortical brain structures.^{30,32}
22. Sticking: To cut the throat and sever both carotid arteries and jugular veins of an animal to allow exsanguination.³³

²⁶ Council Regulation (EC) 1099/2009 - Chapter 1, Article 2, item (f).

²⁷ Council Regulation (EC) 1099/2009 - Chapter 1, Article 4, Clause 1.

²⁸ Zivotofsky, A., Z., (2010). *EC DIALREL Project, Deliverable: 1.1, Religious rules and requirements – Judaism, Report (Part 1)*.

²⁹ Studdert, V.P., Gay, C.C., Blood, D.C. *Saunders Comprehensive Veterinary Dictionary*, 4th Ed. UK: Elsevier Health Sciences. 2011.

³⁰ Hutson GD. The influence of barley feed rewards on sheep movement through a handling system. *Appl Anim Behav Sci* 1985;14:263–273

³¹ Dwyer CM. How has the risk of predation shaped the behavioural responses of sheep to fear and distress? *Anim Welf* 2004;13:269–281.

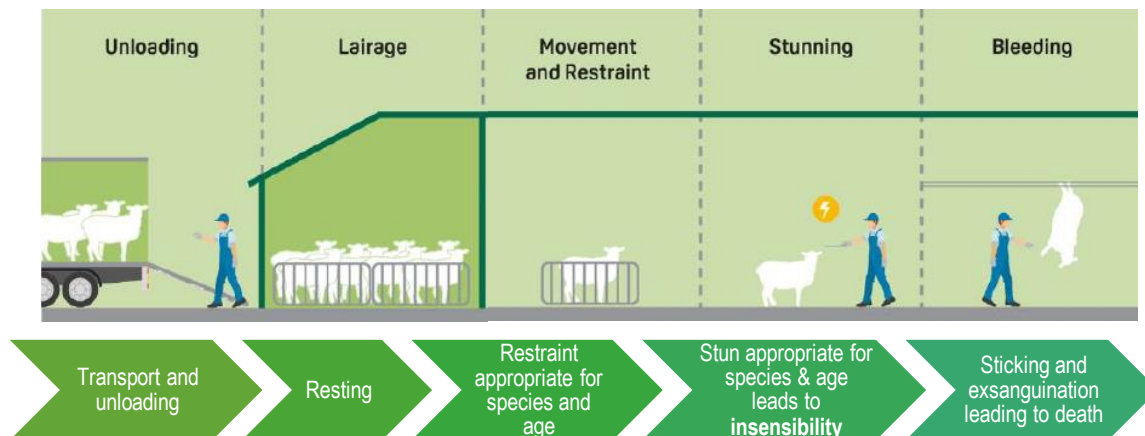
³² Bourquet C, Deiss V, Tannugi CC, et al. Behavioral and physiological reactions of cattle in a commercial abattoir: relationships with organizational aspects of the abattoir and animal characteristics. *Meat Sci* 2011;88:158–168.

³³ FAWC (2003). *Report on the Welfare of Animals at Slaughter or Killing Part 1: Red Meat Animals*. Defra publishing. [Online]. Available: <http://www.fawc.org.uk/reports/pb8347.pdf> [Accessed: 19/3/2014]

23. False aneurysm: When a severed artery end retracts within its connective tissue sheath and the artery end becomes blocked or sealed.³⁴
24. Mis-stunning: When a stun is not carried out correctly and the animal is not rendered immediately unconscious and insensitive to pain. See section on page 20.
25. Mis-cutting: When one or both of the major blood vessels of an animal remains intact or is incompletely cut³⁵ and there follows delayed exsanguination.

Stun slaughter process

Diagram taken from FSA Board Meeting 20/09/2017 Annex 2.



26. Figure 1 shows the standard stun slaughter process:
27. Different methods of stun are used for different species, as listed in Annex 1 of PATOK, to provide the most rapid and humane stun possible, and account for anatomical differences (see Table 1). In no regulations is cutting the throat listed as a stun method.³⁶ Table 2 describes the most common method of stun by species.

³⁴ Gregory, N., Schuster, P., Mirabito, L., Kolesar, R., McManus, T. (2012). Arrested blood flow during false aneurysm formation in the carotid arteries of cattle slaughtered with and without stunning. *Meat Science*. 90: 368-372.

³⁵ Gregory, N.G., von Wenzlawowicz, M., von Holleben, K., Fielding, H.R., Gibson, T.J., Mirabito, L., Kolesar, R. (2012) Complications during shechita and halal slaughter without stunning in cattle. *Animal Welfare*. 21(S2): 81-86.

³⁶ Council Regulation (EC) 1099/2009 - Annex 1 (as referred to in Article 4), Chapter 1, Tables 1,2,3 & 4.

Table 1: An abridged list of stunning methods listed in PATOK.

<i>Mechanical methods</i>	<i>Species applicable</i>
Penetrative captive bolt device	All species
Non-penetrative captive bolt device	Ruminants
Firearm with free projectile	All species
Maceration	Chicks
Cervical dislocation	Poultry
Percussive blow to the head	Piglets, lambs, kids, rabbits
<i>Electrical methods</i>	
Head-only electrical stunning	All species
Head to Body electrical stunning	All species
Electrical waterbath	Poultry
<i>Gas methods</i>	
Carbon dioxide at high concentration	Pigs only
Carbon dioxide in two phases	Poultry
Carbon dioxide associated with inert gases	Pigs and poultry
Inert gases	Pigs and poultry

Table 2: Most common method of stun by species

Penetrative captive bolt	Cattle
Electronarcosis (head only or head to back)	Sheep & goats
Gas stun until dead (thus listed under kill methods)	Pigs
Gas stun until dead (thus listed under kill methods)	Poultry

28. The electrical parameters for different forms of electrical stunning are laid out in Annex I of the PATOK (EU) regulations. This states that poultry should be stunned for at least 4 seconds according to the electrical parameters presented in **Table 3**. Parameters for other forms of electrical stunning as well as gas killing are also included. These parameters have been based on a scientific review performed by the European Food Safety Authority³⁷.
29. In the UK, WATOK Regulations (Schedule I, Part 5) allow for stunning by captive bolt (penetrative and non-penetrative), electrical stunning (including by waterbath for poultry) and by exposure to gas (pigs and poultry). Specific provisions are given to ensure stunning methods are effective. It is **not** permitted to stun animals by a non-mechanical percussive blow to the head with the exception of rabbits.

The WATOK (England) 2015 do not explicitly require animals which are stunned before killing in accordance with religious rites to be stunned in accordance with the parameters in

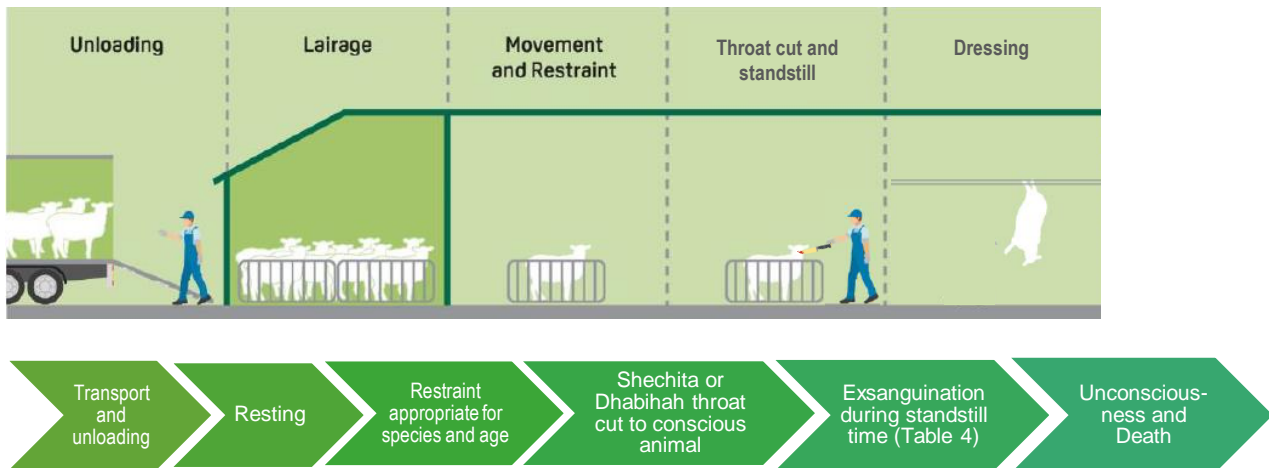
³⁷ Opinion of the Scientific Panel on Animal Health and Welfare on a request from the Commission related to welfare aspects of the main systems of stunning and killing the main commercial species of animals, The EFSA Journal (2004), 45, 1-29 Available online: http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/45.pdf [Accessed 19/11/2015]

Annex I of the EU Regulation (PATOK)³⁸.

Table 3 Electrical parameters for stunning of poultry in a waterbath (PATOK)				
Frequency (Hz)	Chickens	Turkeys	Ducks and geese	Quails
< 200 Hz	100 mA	250 mA	130 mA	45 mA
200 - 400 Hz	150 mA	400 mA	Not permitted	Not permitted
400 - 1500 Hz	200 mA	400 mA	Not permitted	Not permitted

Non-stun slaughter processes

Diagram adapted from FSA Board Meeting 20/09/2017 Annex 2.



30. Figure 2 shows the basic non-stun slaughter process. Table 4 lists standstill times.

Table 4	Standstill time (post-cut prior to any further dressing)
Cattle	30 seconds
Sheep and Goats	20 seconds
Poultry	Goose or turkey 2minutes Any other bird 90 seconds

31. Non-stun slaughter does not use any of the stun methods listed in Table 1 prior to the sticking of an animal to allow exsanguination.

32. Non-stun slaughter must be carried out in accordance with WATOK Regulations. Animals must be slaughtered one at a time and in an approved restraint; for example, a bovine in an

³⁸ Explanatory Memorandum to *The Welfare of Animals at the Time of Killing Regulations (England) 2015*. [Online] Available: http://www.legislation.gov.uk/uksi/2015/1782/pdfs/uksiem_20151782_en.pdf [Accessed: 10/11/2015]

upright restraining pen that will take the weight of the animal and effectively restrain the head. Any blade used must be examined for size and sharpness before rapid, uninterrupted severance of both carotid arteries and jugular veins. Defra released a clarification document for small ruminants.³⁹

33. WATOK 2015 regulations also state that when non-stun slaughter is carried out in cattle, sheep or goats “*appropriate back-up stunning equipment is kept close to the restraining equipment for use in case of emergency*”.⁴⁰
34. Animals must be checked for signs of consciousness or sensitivity before being released from restraint and must not present any sign of life before being further processed (EC N°1099/2009 Article 5+16).

Ruminant signs of unconsciousness are: 1. collapse of the animal (of the behind if restrained in a standing position); 2. no attempt to right itself or its head (if the animal has been restrained in a standing position); 3. no regular breathing; 4. eyes have a fixed, glazed expression, eyes do not follow movements around, they do not blink, there is no response to finger touching the eye – this occurs within 1 to 2 minutes after cutting in cattle; 5. no response to threatening movements (e.g. rushing the hand towards the eyes leading to eyes closing or head moving backwards) – this indicator is not reliable when the animal is in a reversed position in a rotating pen; 6. no response to noise – ears do not move if clapping hands 5 cm from the ear; 7. tongue hanging out of the mouth; 8. uncoordinated leg movements (pedalling). **Poultry signs of unconsciousness** are: 1. no regular breathing; 2. no wing flapping; 3. no spontaneous blinking; 4. no righting attempt; 5. neck is arched with head pointing down (for electrical waterbath only); 6. no blink reflex; and 7. no response to pinch or prick of its comb.⁴¹

Shechita slaughter

35. The method of non-stun slaughter used by the Jewish community is called Shechita. Only meat that passes the Shechita process fully is labelled kosher.
36. All Shechita slaughter is non-stun⁴². A surgically sharp immaculate blade (the chalaf) is passed in one rapid and uninterrupted action across the trachea, oesophagus, carotid arteries and jugular veins. And exsanguination follows. There are five Halachic requirements which must be followed: (a) the incision must be uninterrupted (*Shehiya*); (b) the chalaf must not be pressed against the neck (*Derasa*); (c) the chalaf must be of an

³⁹ Defra (2017) Requirements for non-stun slaughter of small ruminant animals by religious rites <https://www.food.gov.uk/sites/default/files/media/document/vrestrainersguidancefinalengland.pdf>

⁴⁰ *The Welfare of Animals at the Time of Killing Regulations (England) 2015. Schedule 3. SI 2015/1782. UK: HMSO; 2015. [Online] Available <http://www.legislation.gov.uk/ukxi/2015/1782/contents/made> [accessed 10/11/2015]*

⁴¹ European Commission (2017) Preparation of best practices on the protection of animals at the time of killing doi: 10.2875/15243 <https://www.slu.se/globalassets/ew/org/centrb/scaw/kontaktpunkt-slakt/eu-com-best-practices-slaughter-icf-report-2017.pdf>

⁴² Zivotofsky, A., Z. (2010). *EC DIALREL Project, Deliverable 1.1, Religious rules and requirements – Judaism, Report (Part 1).*

adequate size that it is not covered by hide of cattle, wool of sheep or feathers of birds (*Chalada*); (d) the incision must be at the appropriate site (*Hagrama*); and (e) there must be no tearing of the vessels before or during Shechita (*Ikkur*). Also see page 21 section on mis-cutting.

Shechita is performed only by trained Shochetim. They must serve an apprenticeship with an experienced Shochet prior to becoming fully qualified. A UK Shochet must hold two licences, one issued by Meat Hygiene Service and the other by the Rabbinical Commission for the Licensing of Shochetim. Shochetim must apply for renewal of his license every 12 months and undergo annual examination by this Commission. The Shochet is responsible for examining the chalaf for imperfections, visual and tactile examination of the organs and vessels of the animal immediately after severance to ascertain proper Shechita and examination of the internal organs and lungs to ascertain if abnormalities or defects are present.⁴³

37. Not all meat produced by Shechita slaughter remains in the kosher food chain.⁴⁴
 - a. Approximately 60 out of every 100 animals slaughtered are accepted into the kosher food chain.⁴⁵
 - b. In the UK, only the forequarters of an animal (approx. 1/3 of the carcass weight) is eaten because it is uneconomical to purge the hindquarters.⁴⁶
 - c. Zivotofsky estimated that for the reasons above, approximately 70% of meat produced by Shechita slaughter is sold on the general market.⁴⁷

Dhabihah (Halal) slaughter

38. The method of non-stun slaughter used by the Muslim community is called Dhabihah, but is commonly referred to as halal slaughter. Meat produced by this method is labelled halal.
39. The majority of sheep and goats (63%) and cattle (75%) slaughtered by Dhabihah is reversibly pre-stunned, but the remainder of halal meat is non-stun⁴⁸ (see table 8, p18).
40. The reversible pre-stun used in cattle is usually a non-penetrative captive bolt device that applies a concussive blow to the brain without penetrating the skull. In sheep and goats, an

⁴³ Shechita UK. (2009). *A Guide to Shechita*. Shechita UK.

⁴⁴ Food Chain Evaluation Consortium (FCEC) (2015) European Commission DG Health and Food Safety Study on information to consumers on the stunning of animals https://ec.europa.eu/food/sites/food/files/animals/docs/aw_practice_slaughter_fci-stunning_report_en.pdf

⁴⁵ Symons, L. (2010). Kosher meat: In Depth. *The Jewish Chronicle*. May 27th. [Online]. Available: <http://www.thejc.com/news/uk-news/32242/kosher-meat-in-depth> [Accessed: 19/3/14]

⁴⁶ Zivotofsky, A., Z. (2011). Government Regulations of Shechita (Jewish Religious Slaughter) in the Twenty-First Century: Are They Ethical? *J Agric Environ Ethics*. 25:747–763.

⁴⁷ Zivotofsky, A., Z. (2011). Op. cit. https://www.shechitauk.org/wp-content/uploads/2016/02/2012_-_shechita_Ethics_JAEE.pdf pg 759

⁴⁸ *Results of the 2013 Food Standards Agency Animal Welfare Survey in Great Britain* [Online] Available: <https://www.food.gov.uk/sites/default/files/2013-animal-welfare-survey.pdf> [Accessed: 10/11/2015]

electrical stun to the head is commonly used. In poultry, electrical stunning in a waterbath is often used but this may occur at lower currents than PATOK regulations require (but in accordance with WATOK regulations in the UK). Concerns for using higher current electrical stunning come from it being a potentially lethal dose, thereby not meeting the necessity for a reversible stun.

41. There is no universal agreement on a system for approval of halal slaughter, although previous attempts have been made to issue rulings (fatwas). General guidelines are outlined in the DIALREL Report: Religious rules and requirements – Halal slaughter

At the time of slaughter, the slaughterer must say 'Bismillah Wallahuakbar' over each carcass or group of animals being slaughtered continuously. A blade with a sharp edge of not less than 12cm must sever the neck of the animal just below the glottis, incising the trachea, oesophagus, both carotid arteries and jugular veins. A 'sawing' action is permitted provided the blade is not lifted from the neck of the animal.

The slaughterer must be a Muslim of sound mind and understand the rules and conditions related to the slaughter of animals. He must have a certificate of halal slaughter issued by a competent authority.⁴⁹

Number of animals involved

42. Defra collects monthly data from all major slaughterhouses registered in the UK^{50, 51, 52} on the number of livestock slaughtered. The survey data can be used to determine total numbers of animals slaughtered annually (Table 5). Using these totals and the proportion of animals undergoing non-stun slaughter (FSA surveys, see below^{53,54}), estimates of numbers of animals slaughtered without an effective pre-cut stun are shown in Table 6.

TABLE 5:	Estimated annual number of animals slaughtered in abattoirs in UK				
	2011	2013	2015	2017**	2018**
Cattle	2.76 million	2.53 million	2.56 million	1.77 million	1.75 million
Sheep & Goats	14.5 million	14.5 million	14.6 million	13.8 million	11.6 million
Poultry	916 million	962 million	957 million	973 million	1.0 billion

**In 2017 a new monitoring system Chronos was introduced to collect data on throughput from abattoirs in England and Wales). 2017 data are estimated from Q1-Q3 (17/18) figures and 2018 estimates from Q4 (17/18) & Q1 (18/19) figures.

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⁴⁹ Anil, H., Miele, M., von Holleben, K., Bergeaud-Blackler, F., Velarde, A. (2010). *EC DIALREL Project, Deliverable 1.1, Religious rules and requirements – Halal slaughter*. <https://issuu.com/florencebergeaud-blackler/docs/dialrel-recommandations-final-edited>

⁵⁰ DEFRA: United Kingdom Cattle, Sheep and Pig Slaughter statistics – [Online] Available: <https://www.gov.uk/government/collections/cattle-sheep-and-pig-slaughter> [Accessed: 10/11/2015]

⁵¹ DEFRA: United Kingdom Poultry Slaughter statistics – [Online] Available: <https://www.gov.uk/government/collections/poultry-and-poultry-meat-statistics> [Accessed: 10/11/2015]

⁵² Farm animals: data from survey of slaughter methods 2015 [Accessed 06/12/2017] <https://www.gov.uk/government/publications/farm-animals-data-from-survey-of-slaughter-methods>

⁵³ Results of the 2013 Food Standards Agency Animal Welfare Survey in Great Britain [Online] Available: <https://www.food.gov.uk/sites/default/files/2013-animal-welfare-survey.pdf> [Accessed: 10/11/2015]

⁵⁴ Results of the 2011 Food Standards Agency Animal Welfare Survey in Great Britain [Online] Available: <http://www.food.gov.uk/sites/default/files/multimedia/pdfs/board/fsa120508.pdf> Accessed: 10/11/2015]

⁵⁵ Animal Welfare non-compliances for Q1 2017/18 <https://www.food.gov.uk/sites/default/files/fsa170905b.pdf>

⁵⁶ Animal Welfare Non-Compliances in Approved Slaughterhouses (May 2018) <https://data.food.gov.uk/catalog/datasets/eb06ba56-f6d1-4acd-af89-de45b1f21303>

TABLE 6: Proportion of animals undergoing non-stun slaughter as a percentage of annual number slaughtered 2011-2017					
	2011*	2013	2015	2017 **	2018 **
Cattle	3.6 % (99 thousand)	1.9 % (48 thousand)	1.23% (31 thousand)	1.14% (~20 thousand)	1.34% (~23 thousand)
Sheep and goats	10.2% (1.5 million)	15.4% (2.2 million)	22.5% (3.3 million)	24.7% (~ 3.4 million)	27.1% (~3.1 million)
Poultry	4.0% (37 million)	3.5% (34 million)	***WATOK 4.3% (41 million), PATOK 16% (155 million)	18.3 % (~ 178 million)	12.0%**** (~120 million)

Estimated number of animals slaughtered without stun per year are shown in brackets and have been calculated by extrapolation from national figures in Table 5.

**2011 and 2013 surveys were for Great Britain and in 2015 and 2017 surveys were for England and Wales only. However, Scotland had only one abattoir performing non-stun slaughter in 2011 and there were none in 2013 onwards.*

***Estimated numbers of animals for 2017 are extrapolated from Q1-Q3 figures (covering April-December) and by overall abattoir slaughter method only (not individual animals). Estimated numbers of animals for 2018 are extrapolated from Q1-Q2 figures (covering January - June) and by overall abattoir slaughter method only (not individual animals).*

****Non-stun slaughter figures for poultry are based on WATOK regulations for 2011-2015 (applicable in England only), 2017/18 figures use PATOK regulations as the cut-off and 2015 figures list both.*

***** 18/19 Q1 covers the period April-June 2018, and has shown a dramatic decrease in the number of non-stun poultry (once throughput extrapolated from overall premise type). The % of poultry processed at a majority non-stun slaughter plant, was between 17.4 – 18.7% by quarter April 2017 – March 2018, with the percentage of poultry abattoirs classed as majority non-stun-slaughter between 37% at the start of the year dropping to 34%, with some variation in number of abattoirs operating in each quarter (between 67 – 75 plants). In Q1 18/19 (April-June 2018), the number of plants operating was lower at 65, with only a quarter (16) being classed as majority non-stun-slaughter. The overall throughput of poultry slaughtered did not show much variation over this 15month period. It is thought that this lower percentage for poultry undergoing non-stun slaughter may be attributable to a change in classification of the overall abattoir type as stun Vs. non-stun in data collection, and that fewer plants were operational in this quarter than any previously.*

Surveys by the Food Standards Agency (FSA) report the proportion of stunned and non-stunned animals but have differed in their data collection methods and sample population (see footnotes of Table 6). This limits the usefulness of direct comparisons to absolute previous numbers, however the proportion of animals undergoing non-stun slaughter can be compared (Figure 3).

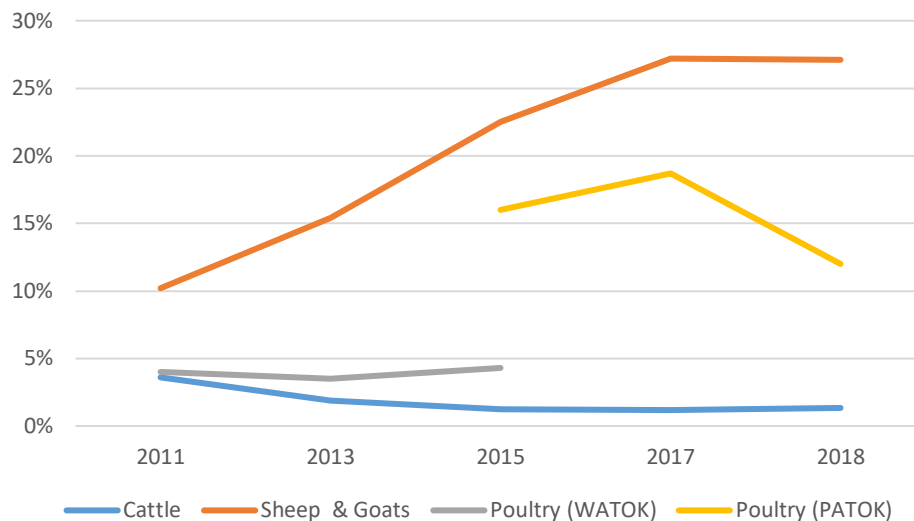


Figure 3: Non-stun slaughter animals as proportion of total slaughtered by species 2011-2018*

*Overall total number of animals slaughtered and number of abattoirs in England and Wales/Great Britain are show in Table 5.

2017 and 2018 data are taken from surveys discussing incidence of welfare non-compliances at the different stages of slaughter. Data in these survey differ from previous surveys as total numbers have been extrapolated from the dominant overall slaughter method at the abattoir (being stun, non-stun or combined 50% each) rather than the slaughter method for individual animals.

2017+ data use the PATOK regulations as the cut-off for non-stun slaughter in poultry where abattoirs in England and Wales during the survey period are governed by WATOK regulations. Therefore figures for non-stun slaughter in poultry for 2018 are only comparable to those from 2015 onwards.

43. The FSA survey in 2013 determined the number of animals subject to non-stun and stun slaughter during one week at 232 red meat and 69 white meat slaughterhouses⁵⁷. A similar survey was carried out in 2011 during one week at 248 red meat and 75 white meat slaughterhouses⁵⁸. The results of these surveys can be used to estimate the proportion of

⁵⁷ Results of the 2013 Food Standards Agency Animal Welfare Survey in Great Britain [Online] Available: <https://www.food.gov.uk/sites/default/files/2013-animal-welfare-survey.pdf> [Accessed: 10/11/2015]

⁵⁸ Results of the 2011 Food Standards Agency Animal Welfare Survey in Great Britain [Online] Available: <http://www.food.gov.uk/sites/default/files/multimedia/pdfs/board/lsa120508.pdf> Accessed: 10/11/2015]

animals that are slaughtered by halal (both those reversibly pre-stunned and non-stunned) and shechita methods (Table 7 and 8).

All animals killed by Jewish (Shechita) methods are not stunned before slaughter. There was an increase in the proportion of non-stun Halal slaughter across all sectors but particularly in the sheep and goat sector between 2011-2013 (Table 8). It is not possible to determine what proportion of the increases in non-stun slaughter between 2015 and 2017 is attributable to Halal or Shechita.

TABLE 7: 2011 and 2013 data showing the proportion of all animals slaughtered for non-stun Shechita, and stunned and non-stunned Halal (estimates of actual numbers from proportions)

	Shechita (Jewish) slaughter (all non-stun slaughter)		Halal (Muslim) slaughter (including both stun and non-stun slaughter)		Non-stun Halal slaughter	
	2011	2013	2011	2013	2011	2013
Cattle	3% (83 thousand)	1.1% (28 thousand)	4% (107 thousand)	3% (81 thousand)	0.6% (17 thousand)	0.8% (20 thousand)
Sheep and goat	0.6% (87 thousand)	0.2% (29 thousand)	50% (7.3 million)	41% (5.9 million)	9.6% (1.4 million)	15.2% (2.2 million)
Poultry	0.4% (3.7 million)	0.1% (960 thousand)	30% (270 million)	21% (210 million)	3.6% (33 million)	3.4% (33 million)

TABLE 8: Estimated* % Non-stun Halal slaughter compared to all Halal slaughter

	2011	2013
Cattle	16%	25%
Sheep and goat	19%	37%
Poultry	12%	16%

*Figures estimated from data in Table 7

Basis of the religious proscription of stunning

44. The Jewish faith requires animals or birds to be alive, healthy and unhurt (unblemished to the naked eye) prior to Shechita. Thus, stunning and unconsciousness, may not be regarded by some in the Jewish community as consistent with their requirements.⁵⁹
45. The Muslim faith requires animals to be “alive and healthy” at slaughter. This is interpreted by the various Muslim authorities in one of two ways- (a) meat that has been reversibly stunned by a demonstrably recoverable method such as electric head-only stunning is acceptable as Halal⁶⁰ or (b) meat that has been stunned in any form is not acceptable as Halal.⁶¹
46. The religious requirements for slaughter were written prior to the current methods of stun being developed. Furthermore, there was no access to the information available nowadays on the health and welfare of the animals presented for slaughter or ante-mortem inspection to ensure animals are in good health and welfare before slaughter for human consumption.

Effect of stunning and bleeding out

47. Meat with lower blood content is desirable for kosher and halal. The effect of stunning on bleeding out has been raised in the discussion for non-stun slaughter, with some claiming non-stunned animals bleed out more effectively. Anil et al. investigated this in two separate peer-reviewed studies in 2004 and 2006. The first study compared the exsanguination of sheep that had been electrically or captive bolt stunned before the throat cut with sheep that were not stunned and were slaughtered by a Muslim method; there was no significant difference between blood loss in the three groups.⁶² The second study compared cattle that had been captive bolt stunned before the throat cut with cattle that were not stunned and slaughtered by a Muslim method; again there was no significant difference between the two groups.⁶³
48. An older review paper by Warriss in 1984 concluded that there was no evidence that the residual blood content of lean meat was affected by different slaughter methods and the amount of blood lost was an approximately constant fraction of the total blood volume.⁶⁴ This is further supported by work done by Griffiths et al. in 1985, which found no difference

⁵⁹ Zivotofsky, A.,Z. (2010). *EC DIALREL Deliverable: 1.1 Religious rules and requirements – Judaism, Report (Part 1)*.

⁶⁰ Anil, M.H., Yesildere, T., Aksu, H., Matur, E., McKinstry, J.L., Weaver, H.R., Erdogan, O., Hughes, S. and Mason, C. (2006). Comparison of Halal slaughter with captive bolt stunning and neck cutting in cattle: exsanguination and quality parameters. *Animal Welfare*. 15: 325-330.

⁶¹ Miele, M., Rucinska, K., Anil, H. (2013) *Welsh Government Report on Halal Slaughter Practices in Wales*.

⁶² Anil, M.H., Yesildere, T., Aksu, H., Matur, E., McKinstry, H.R., Erdogan, O., Hughes, S. and Mason, C. (2004). Comparison of religious slaughter of sheep with methods that include pre-slaughter stunning, and the lack of differences in exsanguination, packed cell volume and meat quality parameters. *Animal Welfare*. 13: 387-392.

⁶³ Anil, M.H., Yesildere, T., Aksu, H., Matur, E., McKinstry, J.L., Weaver, H.R., Erdogan, O., Hughes, S. and Mason, C. (2006). Comparison of Halal slaughter with captive bolt stunning and neck cutting in cattle: exsanguination and quality parameters. *Animal Welfare*. 15: 325-330.

⁶⁴ Warris, P.D. (1984) Exsanguination of animals at slaughter and the residual blood content of meat. *Veterinary Record*. 115: 292-295.

when comparing the blood loss from poultry carcasses following different methods of slaughter.⁶⁵

Mis-stunning, mis-cutting and welfare non-compliances

49. The EU funded DIALREL report (see page 25, para64), acknowledged that all slaughter methods are vulnerable to non-compliances related to inadequate equipment, insufficient knowledge or skills. The report from the APPG for Beef and Lamb (2014) recommended that incidence of compliance failures should be presented for stun and non-stunned slaughter. Recent FSA data has done this although the overall abattoir type has been used to define stun or non-stun failures, rather than the slaughter method used on each individual or batch of animals. As such, figures may not be fairly representative of the incidences for each slaughter type.

50. The frequency of mis-stunning incidents in UK abattoirs has been raised in argument against the practise of stunning. Attempting to stun an animal carries a risk of a mis-stunning incident occurring. Immediate and appropriate action is required to be taken to rectify such an incident; the Food Standards Agency Manual for Official Controls makes the following statements clarifying the Food Business Operator responsibility for a Standard Operating Procedure for mis-stun incidents and the role of the Official Veterinarian in periodically monitoring stunning efficacy:

“As regards stunning, the Standard Operating Procedure shall: [...] (c) specify the measures to be taken when checks indicate that an animal is not properly stunned or in the case of animals slaughtered or in the case of animals slaughtered in accordance with Article 4(4) (religious slaughter), that the animal still presents signs of life.”⁶⁶

Page 2-2, Chapter 2.3, Manual for Official Controls

“The OV should carry out checks: [...] to monitor stunning.”⁶⁷

Page 3-2, Chapter 2.3, Manual for Official Controls

51. There is some controversy about the frequency of mis-stunning. In 2004 the European Food Safety Authority (EFSA) reported that when using captive bolt stun in cattle, between 4-6.6% cattle needed a second stun.⁶⁸ There is a marked contrast between these figures and recent figures from the FSA⁶⁹ (Table 11).

⁶⁵ Griffiths, G.L., McGrath, M., Softly, A., Jones, C. (1985) Blood content of broiler chicken carcasses prepared by different slaughter methods. *Veterinary Record*. 117, 382-385.

⁶⁶ Food Standards Agency (2014). *Manual for Official Controls*. Version 16, Chapter 2.3: Animal Welfare [Online] Available: <http://multimedia.food.gov.uk/multimedia/pdfs/mocmanualch2part3rev62.pdf> [Accessed: 18/6/14].

⁶⁷ Food Standards Agency (2014). *Manual for Official Controls*. Op. cit.

⁶⁸ European Food Safety Authority (EFSA) (2004). *Welfare aspects of animal stunning and killing methods - Scientific Report of the Scientific Panel for Animal Health and Welfare on a request from the Commission related to welfare aspects of animal stunning and killing methods* (Question N° EFSA-Q-2003-093). P. 61. [Online] Available: <http://www.efsa.europa.eu/en/scdocs/doc/45ax1.pdf>

⁶⁹ Animal Welfare non-compliances for Q1 2017/18 <https://www.food.gov.uk/sites/default/files/fsa170905b.pdf>

Table 11: Incidents of non-compliance at bleeding at stun and non-stun abattoirs and non-compliances at stunning at abattoirs using stunning (proportion of overall throughput, %)

Cattle	Non-stun abattoirs	Stun Abattoirs	
	(bleeding)	(bleeding)	(stunning)
	0	<0.01	<0.01
Sheep/goats	<0.01	<0.01	<0.01
Poultry	<0.01	<0.01	<0.01

These figures are similar to those reported in response to a Parliamentary Written Question in 24/03/14 for non-compliances in 2013^{70 71}

Previously, only major and critical welfare breaches were recorded. The FSA survey is now recording incidents of minor breaches including where back-up stunning equipment is used or a second stun is carried out without the intervention of the Official Veterinarian.

There has been some dispute over figures for incidents of welfare non-compliance in the past.^{68, 69}

52. A 2016 study of 346 cattle compared mis-stunning between animals stunned by penetrative captive bolt (279) and non-penetrative captive bolt (used as a reversible stunning method) (67). The proportion of cattle mis-stunned was higher when using the non-penetrative bolt stunning (prior to halal slaughter) with 46% mis-stunning compared to just 2% for penetrative captive bolt stunning (used in secular slaughter).⁷²
53. Cutting the throat of non-stunned animals, as in Shechita or Dhabihah, also carries a risk of a mis-cutting incident. Mis-cutting the throat of a non-stunned animal usually involves one or both of the carotid arteries remaining intact or being incompletely cut⁷³; there follows delayed exsanguination, and the animal is conscious and sensitive to pain for an extended time.
54. The UK legislation requires that for non-stun slaughter, each animal is slaughtered by the severance, by rapid, uninterrupted movements of a hand-held knife, of both its carotid arteries and both its jugular veins.⁷⁴ Gregory et al. remark that this could be interpreted to allow for changes of direction in cut, provided they were uninterrupted, nevertheless the more cuts that are made, the higher the risk of pain sensation in the animal.⁷⁵

⁷⁰ Rao, A. (2014) Letter: Prestun shocks and mis-stuns during conventional slaughter. *Veterinary Record*. 174: 457-458.

⁷¹ Hayes, S (2014) Letter: Prestun checks and mis-stuns during conventional slaughter. *Veterinary Record*. 174: 561-562.

⁷² Neves, J, Paranhos da Costa, M, Roca, R, Faucitano, L. and Gregory, N. (2016) A note comparing the welfare of Zebu cattle following three stunning-slaughter methods. *Meat Science* 117: 41-43.

⁷³ Gregory, N.G., von Wenzlawowicz, M., Alam, R.M., Anil, H.M., Yesildere, T., Silva-Fletcher, A. (2008) False aneurysms in carotid arteries of cattle and water buffalo during shechita and halal slaughter. *Meat Science*. 79: 285-288.

⁷⁴ *The Welfare of Animals at the Time of Killing Regulations (England) 2015*. SI 2015/1782. UK: HMSO; 2015. [Online] Available <http://www.legislation.gov.uk/ukksi/2015/1782/contents/made> [accessed 10/11/2015]

⁷⁵ Gregory, N.G., von Wenzlawowicz, M., von Holleben, K., Fielding, H.R., Gibson, T.J., Mirabito, L., Kolesar, R. (2012) Complications during shechita and halal slaughter without stunning in cattle. *Animal Welfare*. 21(S2): 81-86.

55. Data from Gregory et al. in 2008 in cattle recorded number of throat cuts averaged 3.2 ± 0.1 (mean, standard error, $n=231$) for shechita slaughter and 5.2 ± 0.2 ($n=116$) cuts for halal slaughter to sever both carotid arteries and jugular veins (where one cut represents a movement of the blade in one direction without withdrawal of the knife).⁷⁴ In the same study, it was determined that the prevalence of failure to cut a carotid artery was 6% during shechita slaughter and 1% during halal slaughter.⁷⁶ This suggests that several cuts are required for non-stun slaughter methods to ensure severance of both carotid arteries and jugular veins, increasing the risk of stimulation of free nerve endings in the skin and pain sensation in the animal.⁷⁷
56. The Food Standards Agency Manual for Official Controls makes the following statement with regard to intervention to address mis-cutting:

"In establishments where killing by a religious method takes place, there should be checks by the business operator that animals are unconscious before being released from restraint and checks that the animal does not present any sign of life before undergoing dressing or scalding."^{78, 79}

Page 4-2, Chapter 2.3, Manual for Official Controls

Time to unconsciousness or collapse and evidence of pain and suffering

57. Loss of posture (LOP) and loss of righting reflex (LORR) are recognised as an easily observable proxy for loss of consciousness by the American Veterinary Medicine Association.⁸⁰
58. Gregory et al. studied the time to collapse in 174 cattle undergoing non-stun Halal slaughter. Table 9 and Figure 4 summarise the results of the study.⁸¹

⁷⁶ Gregory, N.G., von Wenzlawowicz, M., Alam, R.M., Anil, H.M., Yesildere, T., Silva-Fletcher, A. (2008) False aneurysms in carotid arteries of cattle and water buffalo during shechita and halal slaughter. *Meat Science*. 79: 285-288.

⁷⁷ Gregory, N.G., et al. (2012) Op. Cit.

⁷⁸ Food Standards Agency (2014). *Manual for Official Controls*. Version 16, Chapter 2.3: Animal Welfare [Online] Available: <http://multimedia.food.gov.uk/multimedia/pdfs/mocmanualch2part3rev62.pdf> [Accessed: 18/6/14].

⁷⁹ Council Regulation (EC) 1099/2009 - Chapter II, Article 4, 4; Article 5, 2 and 3; Chapter III Article 15, 2.

⁸⁰ American Veterinary Medicine Association (AVMA) Guidelines for Humane Slaughter 2016

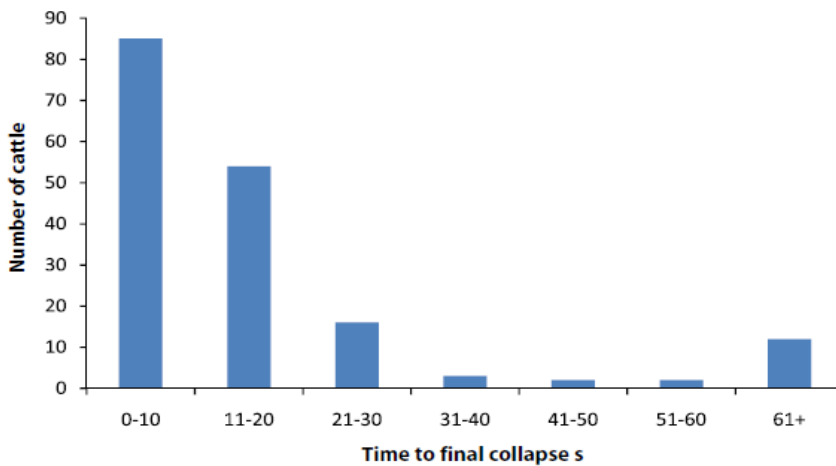
<https://www.avma.org/KB/Resources/Reference/AnimalWelfare/Documents/Humane-Slaughter-Guidelines.pdf>

⁸¹ Gregory, N., Fielding, H.R., von Wenzlawowicz, M., von Holleben, K. (2010). Time to collapse following slaughter without stunning in cattle. *Meat Science*. 85: 66-69.

Table 9: Time to collapse in 174 cattle subject to non-stun Halal slaughter.

Average time to collapse (seconds)	20 (std deviation ±33)
Median time to collapse (seconds)	11
Maximum time to collapse (seconds)	265
Number of cattle ≥60seconds to collapse	14 (8%)
Number of cattle that collapsed and stood again before final collapse.	25 (14%)

Figure 4: Frequency distribution of cattle time to collapse (in seconds) following Halal



Reproduced from: Gregory, N. et al (2010) Time to collapse following slaughter without stunning in cattle. *Meat Science*. 85; 66-69.

slaughter without stunning.

59. The AVMA refer to several studies^{82,83} examining unconsciousness in ruminants as measured by loss of posture. In sheep loss of posture occurred on average 2-14 seconds after throat cut but eye rotation was shown to take 15 seconds in a more recent 2012 study.⁸⁴ Grandin noted that there was little behavioural reaction in restrained cattle to the throat cut when performed by a skilled slaughter man (Shochet)^{85,86} but loss of posture only occurred between 17-85 seconds. In another study of chickens undergoing Shechita

⁸² American Veterinary Medicine Association (AVMA) Guidelines for Humane Slaughter 2016

<https://www.avma.org/KB/Resources/Reference/AnimalWelfare/Documents/Humane-Slaughter-Guidelines.pdf>

⁸³ Blackmore DK, Newhook JC, Grandin T. Time of onset of insensibility in four- to six-week-old calves during slaughter. *Meat Sci* 1983;9:145–149.

Blackmore DK. Differences in behavior between sheep and cattle during slaughter. *Res Vet Sci* 1984;37:223–226.

Nangeroni LI, Kennet PF. An electroencephalographic study of the effects of shechita slaughter on cortical function in ruminants. Ithaca, NY: Cornell University, 1983.

Newhook JC, Blackmore DK. Electroencephalographic studies of stunning and slaughter in sheep and calves, part 1—the onset of permanent insensibility in sheep during slaughter. *Meat Sci* 1982;6:295–300.

Schulz W, Schulze-Oetzold H, Hazem AS, et al. Objectivization of pain & consciousness in the conventional (dart-gun anesthesia) as well as in ritual (kosher incision) slaughter of sheep & calf [in German]. *Dtsch Tierarztl Wochenschr* 1978;85:62–66.

Daly CC, Kallweit E, Ellendorf F. Cortical function in cattle during slaughter. *Vet Rec* 1988;122:325–329.

Gregory NG, Wotton SB. Time to loss of brain responsiveness following exsanguination in calves. *Res Vet Sci* 1984;37:141–143.

⁸⁴ Cranley (2012) Slaughtering lambs without stunning. *Vet Record* (170) 267-268

⁸⁵ Grandin T. Euthanasia and slaughter of livestock. *J Am Vet Med Assoc* 1994;204:1354–1360.

⁸⁶ Grandin T, Regenstein JM. Slaughter: a discussion for meat scientists. *Meat Focus Int* 1994;3:115–123.

slaughter they also note most did not exhibit physical responses to the cut but time to collapse was 12-15seconds.⁸⁷

60. The Farm Animal Welfare Council (FAWC) took evidence in 2003 to assess the welfare of animals at slaughter without stunning. They presented the data in Table 10 on species differences in time to loss of consciousness from the evidence presented to them.⁸⁸

Table 10: Species differences in time to loss of brain responsiveness.

Adult cattle	22-40 (or longer with carotid occlusion) seconds
Calves	10-120 seconds
Sheep	5-7 seconds
Goats	3-7 seconds

Cattle are unique in possessing an alternative blood supply to the brain other than the carotid arteries – the vertebral-basilar plexus. If exsanguination is incomplete because blood flow from the carotid arteries is arrested due to false aneurysm (see paragraph 23, page 9 for definition), blood can continue to flow to the brain via this plexus and consciousness is maintained.^{89, 90}

The FAWC report also reports expert opinion as describing:

“When a very large transverse incision is made across the neck a number of vital tissues are transected including: skin, muscle, trachea, oesophagus, carotid arteries, jugular veins, major nerve trunks (e.g. vagus and phrenic nerves) plus numerous minor nerves. Such a drastic cut will inevitably trigger a barrage of sensory information to the brain in a sensible (conscious) animal. We are persuaded that such a massive injury would result in very significant pain and distress in the period before insensibility supervenes.”

“Given that the exemption from pre-stunning is subject to the requirement that unnecessary suffering is not inflicted, we consider that the Government should take steps to repeal this exemption.”⁹¹

61. Evidence for pain and suffering at the time of slaughter is contentious. It is important to note that objective measurements of pain and distress are hard to take during the slaughter process and subjective indicators may be limited by restraint methods.

⁸⁷ Barnett, Cronin, Scott (2007) Behavioural response of poultry during kosher slaughter and their implications for the bird's welfare. *Vet Record* (160) 45-49

⁸⁸ FAWC (2003). *Report on the Welfare of Animals at Slaughter or Killing Part 1: Red Meat Animals*. Defra publishing, pp35 [Online]. Available: <http://www.fawc.org.uk/reports/pb8347.pdf> [Accessed: 19/3/2014]

⁸⁹ Gregory, N., Schuster, P., Mirabito, L., Kolesar, R., McManus, T. (2012). Arrested blood flow during false aneurysm formation in the carotid arteries of cattle slaughtered with and without stunning. *Meat Science*. 90: 368-372.

⁹⁰ Baldwin & Bell (1963) The anatomy of cerebral circulation of the sheep and ox. The dynamic distribution of the blood supplied to the carotid and vertebral arteries to cranial regions. *Journal of Anatomy* (97) 203-215

⁹¹ FAWC (2003). *Report on the Welfare of Animals at Slaughter or Killing Part 1: Red Meat Animals*.

62. Previous parliamentary debates⁹² have argued that there are few nerve endings in the throat thus disputing the expert opinion given in the FAWC report. However, anatomical text books show there to be nerve fibres below the skin in the throats of both humans and bovines⁹³⁹⁴
63. A 2017 European commission report on best practices for the protection of animals at the time of killing recognises that the 'duration of the pain provoked by the neck cut can be reduced if stunning is performed immediately after the cut (post-cut stunning)'.⁹⁵
64. The European Commission also funded the DIALREL Project from 2006 to 2010, entitled 'Religious slaughter, improving knowledge and expertise through dialogue and debate on issues of welfare, legislation and socio-economic aspects'. The project addressed five work packages (1) religion, legislation and animal welfare: conflicting standards; (2) religious slaughter: evaluation of current practices; (3) halal consumer and consumption issues; (4) concerns, knowledge and information in the general public; and (5) promotion of the debate and dissemination.

The following conclusions were made in Deliverable 1.3, 'Report on good and adverse practices – Animal welfare concerns in relation to slaughter practices from the viewpoint of the veterinary sciences':

*"[There is a] high probability that animals feel pain during and after the throat cut without prior stunning. This applies even to a good cut performed by a skilled operator, because substantial tissue damage is inflicted to areas well supplied with nociceptors and subsequent perception of pain is not exclusively related to the quality of the cut."*⁹⁶

65. Gibson et al., published two peer-reviewed research papers in the New Zealand Veterinary Journal in 2009. They examined the pain-associated electroencephalographic (EEG) responses of halothane-anaesthetised calves to non-stun slaughter (a true replication of Shechita slaughter was not possible due to laws protecting animal welfare in experimentation requiring some anaesthesia). In summary, following a cut to the neck, pain-like responses were recorded in the brain and use of a stun removed these pain-like responses:

⁹² Lord Winston speech during debate Animal Welfare: Methods of Slaughter, Colum 200, 16 January 2014

<https://hansard.parliament.uk/Lords/2014-01-16/debates/14011665000550/AnimalWelfareMethodsOfSlaughter?highlight=shechita#contribution-14011665000123>

⁹³ Klein, B (2012) Cunningham's textbook of anatomy, Elsevier, pages 737-742 ISBN 9781437723618

⁹⁴ Sisson and Grossman's the Anatomy of the Domestic Animals. (1975) pages 860 to 863, ISBN : 0721641024

⁹⁵ European Commission (2017) Preparation of best practices on the protection of animals at the time of killing doi: 10.2875/15243 <https://www.slu.se/globalassets/ew/org/centrb/scaw/kontaktpunkt-slakt/eu-com-best-practices-slaughter-icf-report-2017.pdf>

⁹⁶ Von Holleben, K., von Wenzlawowicz, M., Gregory, N., Anil, H., Velarde, A., Rodriguez, P., Cenci Goga, B., Catanese, B., Lambooi, B., (2010). *EC DIALREL Project, Deliverable 1.3 Report on good and adverse practices – Animal welfare concerns in relation to slaughter practices from the viewpoint of veterinary sciences.*

“[The first study] demonstrated that there is a period following slaughter where ventral neck incision represents a noxious stimulus.”⁹⁷

“[In the second study] non-penetrative captive bolt stunning after ventral neck incision resulted in the cessation of functional cortical activity in the majority of calves. This procedure prevented the development of cerebrocortical responses to ventral neck incision, demonstrated elsewhere, which would be painful in conscious animals subjected to this procedure.”⁹⁸

However, current EEG-based brain function monitors cannot provide definitive answers as to the exact onset of unconsciousness.^{99,100}

66. An argument used by Shechita UK¹⁰¹, is that the throat cut acts as a stun method. This is not however recognised by the legislation. A study of 88 cattle slaughtered by the Shechita method (published in 2016) found response to nostril stimulation and tongue pinch, spontaneous blinking and rhythmic breathing in 7, 4, 10 and 100% of cattle, respectively, 20 seconds after throat cut but none of these responses in animals that had been stunned. The study concluded that slaughter without previous stunning may result in greater risk of cattle experiencing suffering, pain and distress at slaughter.¹⁰²
67. The European Food Safety Authority also supported the opinion that animals endured more pain and suffering where there was no stun.¹⁰³
68. In his review article in the Veterinary Record, ‘Physiological insights into Shechita’ Rosen refers to work described in an unpublished thesis (Levinger 1961¹⁰⁴), and an essay from the same author published in a non-peer reviewed book from 1976, ‘Shechita. Religious, Historical and Scientific Aspects’.¹⁰⁵ We were unable to access these original sources following an online literature search. When talking about cerebral perfusion, loss of consciousness and consequent insensibility, Rosen claims:

⁹⁷ Gibson, T.J., Johnson, C.B., Murrell, J.C., Hulls, C.M., Mitchinson, S.L., Stafford, K.J., Johnstone, A.C., Mellor, D.J. (2009). Electroencephalographic responses of halothane-anaesthetised calves to slaughter by ventral neck incision without prior stunning. *New Zealand Veterinary Journal*. 57:2, 77-83.

⁹⁸ Gibson, T.J., Johnson, C.B., Murrell, J.P., Stafford, K.J., Mellor, D.J. (2009). Amelioration of electroencephalographic responses to slaughter by non-penetrative captive bolt stunning after ventral neck incision in halothane anaesthetised calves. *New Zealand Veterinary Journal*. 57:2 96-101.

⁹⁹ Grandin T. Vocalization scoring of restraint for kosher slaughter of cattle for an animal welfare audit. Available at: www.grandin.com/ritual/vocal.scoring.restraint.cattle.welfare.audit.html. Accessed Jun 28, 2012.

¹⁰⁰ Grandin T. Developing measures to audit welfare of cattle and pigs at slaughter. *Anim Welf* 2012;21:351–356.

¹⁰¹ Shechita UK (2009) A guide to Shechita; Editors: Kesselman, Rosen, Winegarten https://www.shechitauk.org/wp-content/uploads/2016/02/A_Guide_to_Shechita_2009_01.pdf

¹⁰² Neves, J. Paranhos da Costa, M. Roca, R. Faucitano, L. and Gregory, N. (2016) A note comparing the welfare of Zebu cattle following three stunning-slaughter methods. *Meat Science* 117: 41-43.

¹⁰³ EFSA Journal, Opinion of the Scientific Panel on Animal Health and Welfare (AHAW) on a request from the Commission related to welfare aspects of the main systems of stunning and killing the main commercial species of animals, 11 October 2004

¹⁰⁴ Levinger, I. M. (1961). Untersuchungen zum Schächtproblem. DVM thesis, University of Zürich, Switzerland.

¹⁰⁵ Levinger, I. M. (1976). Medical aspects of Shechita. In Shechita. Religious, Historical and Scientific Aspects. Eds E. Munk, M. L. Munk. Jerusalem, Gur Aryeh Publications. pp 147-149.

“the collapse in arterial blood pressure that follows on from severance of the carotid arteries at Shechita causes a dramatic fall in cerebral perfusion [...] Consciousness is lost rapidly (within approximately two seconds) and irreversibly.”

“...Shechita is a painless and effective method by which to stun and dispatch an animal in one rapid act.”¹⁰⁶

Stakeholder position statements: Religious groups

69. The position of stakeholder groups on pain and suffering at the time of slaughter is also divided.

- a. **Shechita UK** is a community-wide campaign that unites representatives from the Board of Deputies of British Jews, the National Council of Shechita Boards, the Union of Orthodox Hebrew Congregations and the Campaign for the Protection of Shechita. It incorporates representatives from all the Kashrus Authorities in the UK. They state:

“The legal definition of “stunning” in the UK is to “render an animal unconscious until death”. The process of Shechita conforms to this legal definition”.

“With Shechita there is no delay because the slaughter method incorporates an immediate stun. Shechita both stuns and slaughters in one action, thereby making it the most humane and efficient method.”¹⁰⁷

Also see p22-23 ‘Time to unconsciousness and evidence of pain and suffering’.

- b. The **Halal Food Authority (HFA)** group, is a widely recognised Halal certifier that estimates that it certifies 70% of UK Halal meat, states:

“...animal welfare as well as human safety at slaughterhouse would be jeopardised if slaughter without stunning was performed for large-scale production. HFA argues that kosher meat can be produced ... without stunning because, contrary to Halal meat, it is produced in low quantities, manually even in the case of chickens, at low speed and high costs, supplying a small percentage of the population.”¹⁰⁸

A survey of 66 Islamic scholars, funded by the Halal Food Foundation (parent company of the HFA), found that 95% of scholars agreed it was permissible for Halal slaughter to include pre-stunning provided that the stun did not cause death, physical injury or obstruct bleed-out and that slaughter was carried out by a Muslim. However, many

¹⁰⁶ Rosen, S.D. (2004). Physiological insights into Shechita. *Veterinary Record*. 154, 759-765.

¹⁰⁷ Shechita UK Website F.A.Q. [Online]. Available: <http://www.Shechitauk.org/faq.html> [Accessed: 19/3/14]

¹⁰⁸ Miele, M., Rucinska, K., Anil, H. (2013). *Welsh Government Report on Halal Slaughter Practices in Wales*.

scholars would still not recommend the use of stunning as they regarded it as a cruel and inhumane practice that adversely affects the volume of blood loss during exsanguination and produces meat of inferior quality¹⁰⁹ (see p19 ‘Effect of stunning and bleeding out’).

- c. The **Halal Monitoring Committee (HMC)** is a Halal certifier with a different view. Their certification criteria require that:

“[A] swift and humane incision [is made,] rendering the animal insensible to pain (hand slaughter).”

They go on to state that: *“Stunning prevents the drainage of blood, and deprives animals of the benefits of Tasmiyah [the Islamic prayer] as it is unconscious. It is seen as inhumane to animals and causes pain and suffering.”*¹¹⁰(see p19 ‘Effect of stunning and bleeding out’).

- d. The **Halal Authority Board (HAB)** is one of the newest certification bodies and is part of a bigger global group and brand, Al Hijaz. Their standard does not include specifics on animal welfare, but their spokesperson gave this statement:

*“The government regulations on animal welfare in this country are very good and where we feel there are gaps it is our duty to inform the government and improve those standards for animal welfare purposes. But because those regulations exist, we do not have to repeat those regulations in our standard – there is no point ... If the government was not doing it then we would put it into our own standard.”*¹¹¹

Stakeholder position statements: Animal welfare groups and assurance bodies

70. A number of animal welfare organisations have considered the evidence available and taken positions as follows:

- a. **The British Veterinary Association (BVA),**

¹⁰⁹ Fuseini, A., Wotton, S., Hadley, P., Knowles, T. (2017) The Perception and acceptability of pre-slaughter and post-slaughter stunning for Halal production: The views of UK Islamic scholars and Halal consumers. *Meat Science* 123:p145-150

¹¹⁰ HMC Criteria for Halal <https://halalhmc.org/about/hmc-criteria-for-halal/> [Accessed 15th January 2018]

¹¹¹ Miele, M., et al. (2013). *Op. Cit.* <http://www.haboard.com/index.html>

“The BVA view is that all animals should be stunned before slaughter, and if slaughter without stunning is still to be permitted then any meat or fish from this source must be clearly labelled.”¹¹²

b. The Farm Animal Welfare Council,

“Council considers that slaughter without pre-stunning is unacceptable and that the Government should repeal the current exemption.”¹¹³

c. The Federation of Veterinarians in Europe (FVE),

“FVE is of the opinion that the practice of slaughtering animals without prior stunning is unacceptable under any circumstances and that animals should be effectively stunned before slaughter. FVE calls on policy makers to stop the excessive use of slaughter without stunning as a priority.”¹¹⁴

d. The Humane Slaughter Association (HSA),

“Whilst respecting differing religious beliefs, the HSA’s position on the pre-slaughter stunning of animals has always been unequivocal, all animals should be effectively stunned prior to being bled. Recent advances in the electrical stunning of cattle now make reversible stunning a practical option for all. This overcomes one of the main obstacles preventing a full uptake of pre-slaughter stunning.

As long as meat from animals slaughtered without pre-stunning is available in the UK (whether slaughtered in the UK or imported), we believe it should be clearly and accurately labelled as such. The aim of the HSA remains that all animals should be effectively stunned prior to being bled, because this precludes the possibility of suffering.”¹¹⁵

e. The RSPCA

“We are opposed to the slaughter of any animal without first ensuring it is rendered insensible to pain and distress. We recognise that religious beliefs and practices should be respected. However, we also believe animals should be slaughtered under the most

¹¹² BVA Parliamentary Briefing (2013). *Slaughter without stunning and food labelling*. [Online]. Available: [http://www.bva.co.uk/public/documents/Briefing - Welfare at slaughter Oct 2013.pdf](http://www.bva.co.uk/public/documents/Briefing_-_Welfare_at_slaughter_Oct_2013.pdf) [Accessed: 19/3/14]

¹¹³ FAWC (2003). *Report on the Welfare of Animals at Slaughter or Killing Part 1: Red Meat Animals*. Defra publishing. [Online]. Available: <http://www.fawc.org.uk/reports/pb8347.pdf> [Accessed: 19/3/2014]

¹¹⁴ FVE Briefing Note (2012). *Slaughter without stunning and food labelling*. [Online]. Available: <http://www.fve.org/uploads/publications/docs/030%20fve%20position%20labeling%20meat%20from%20animals%20slaughtered%20without%20stunning%20final.pdf> [Accessed: 19/3/14]

¹¹⁵ Humane Slaughter Association (2011). *The facts: Religious slaughter*. [Online]. Available: <http://www.hsa.org.uk/downloads/related-items/religious-slaughter.pdf> [Accessed: 19/3/14].

humane conditions possible. Evidence clearly indicates that slaughter without pre-stunning can cause unnecessary suffering.”¹¹⁶

f. Farmwel

Animals reared in Britain should be slaughtered in Britain, and abattoirs should develop a more open, market-facing approach to slaughter. This could include CCTV at the slaughter line, as well as non-discriminatory method of slaughter labelling.¹¹⁷

71. Several Food Assurance bodies including Assured Food Standards (Red Tractor)¹¹⁸, Soil Association Organic¹¹⁹ and RSPCA Assured (previously Freedom Food)¹¹⁴ do not allow non-stun slaughter meat to be accredited.

Stakeholder position statements: UK Retailers on non-stun slaughter

72. In response to letters of enquiry from the VPRF, the following supermarkets have responded as follows:

a. Morrisons,

“All Morrisons own brand meat comes from animals which have been stunned before slaughter. All of our fresh meat (including all the meat sold from our in-store butchers counter) is British. We operate three abattoirs (in Spalding, Colne and Turiff) which slaughter sheep, pigs and cattle. The meat is sent to either our manufacturing sites for further processing (we are the second largest fresh food manufacturer in the UK) or to our in-store butchers counters.

We sell a range of branded halal and kosher products where there is strong demand. In addition, we have a small number of independent halal concessions operating in certain stores where there is a particularly large Muslim catchment. The meat from these concessions is from non-stunned sources.”¹²⁰

Head of Corporate Services

b. Marks and Spencer,

¹¹⁶ RSPCA (2013). *Farm Animals Department Information Sheet: Slaughter without pre-stunning for religious purposes*. [Online]. <http://content.www.rspca.org.uk/cmsprd/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobnocache=false&blobtable=MungoBlobs&blobwhere=1233027104104&ssbinary=true> [Accessed: 19/3/14]

¹¹⁷ Farmwel <http://www.farmwel.org.uk/Policy.html> [Accessed 16 Janurayr 2018]

¹¹⁸ Assured Food Standards (2012). *Red Tractor Assurance for Meat: Processing Scheme*. [Online]. Available: http://assurance.redtractor.org.uk/resources/000/799/072/RTA_MP_Standard_Manual_Mar_2014.pdf [Accessed: 19/3/14]

¹¹⁹ Soil Association (2014). *Soil Association Organic standards abattoirs and slaughtering, Revision 17.1*. [Online]. Available: <http://www.soilassociation.org/LinkClick.aspx?fileticket=uRew0iy7ir0%3d&tabid=353> [Accessed 19/3/14].

¹²⁰ Scott, D, Head of Corporate Services, Wm Morrison Supermarkets plc Personal Communication 1st February 2018

“Animal welfare is at the heart of our livestock procurement policies and therefore all M&S foods have a requirement for pre-stunning prior to slaughter.”

“We take a pro-active stance on labelling, trying to always ensure that where we have a policy or procedure that our customers would expect to know about, we ensure our labelling reflects this. [...] as we don’t source non-stunned livestock, we have no experience of labelling in this area.”¹²¹

Marks & Spencer Head of Agriculture and Fisheries

c. Waitrose,

“We place the highest importance on animal welfare in our business and require that all livestock supplying our own label meat is stunned before slaughter.”

“We would support labelling by exception; that is the labelling of all meat from animals not stunned before kill.”¹²²

Waitrose Senior Manager of Agri-food Communications

d. Tesco,

“We require all slaughter processes for Tesco branded products to meet our stringent animal welfare requirements, without exception. In every case, the animal is stunned before slaughter. We do however, in some stores, sell branded meat or host concessions that sell un-stunned halal and kosher meat. This is to serve customers who specifically wish to purchase un-stunned meat. This meat is clearly labelled Halal or Kosher, so that our customers are able to make informed choices.”

“Regarding labelling should the Government choose to look at this area it will be important that any guidance offered delivers a consistent approach across the food industry and enables us to provide even greater transparency for our customer.”¹²³

Tesco Director of Agriculture

e. The Co-operative Group,

“All Co-op own-brand fresh and frozen meat and poultry sold has been humanely stunned prior to slaughter, and all abattoirs and processing plants supplying our own-brand products are required to work to the standards laid down by our strict animal welfare requirements as well as the Humane Slaughter Association in their Codes of Practice.

We do sell some branded Halal certified meat in a small number of stores where there is sufficient demand, but again this is all pre-stunned prior to slaughter.”

Press and Media Manager (Food)

¹²¹ McLean, S. M&S Head of Agriculture and Fisheries. Personal Communication 30th January 2018.

¹²² Gregson, J. Waitrose Agri-food Communications. Personal Communication 30th January 2018.

¹²³ McNeill, A. The Co-operative Group Press and Media Manager Personal Communication 30th January 2018

f. ASDA

“ASDA policy is for meat for our Own Brand products to be from livestock which are stunned prior to slaughter.”¹²⁴

Senior Director Sustainability and Sourcing

g. McDonalds

“We listen to our customers in every country where we operate and, as a result, develop food offers that are most relevant to them. While there are diverse customer needs, we base our food development on dominant preferences and customer demands. We do not, therefore, currently offer specialist food options like kosher or halal in the UK.

All the meat sold in our UK and Irish restaurants is reared in accordance to nationally recognised farm assurance scheme including RSPCA Assured, Red Tractor and Bord Bia schemes or their national equivalent for animals reared outside the UK and Ireland.

All animals are required to be stunned prior to slaughter.”¹²⁵

McDonald’s UK Agriculture Manager

h. Sainsbury’s

“All the livestock and farmed salmon, trout and pangasius which go towards Sainsbury’s brand products are stunned before slaughter and according to both regulatory requirements and current best practice industry guidance. We do not accept meat for our own brand products from abattoirs that slaughter without stunning. Pigs, chickens and turkeys are stunned-to-kill in controlled atmosphere (gas) systems. For these species the associated methods provide significant benefits in terms of minimising potential stress during live animal handling. In particular, they eradicate the need for live shackling of poultry. Sheep, cattle and waterfowl are stunned by species-appropriate methods and in accordance with the requirements of Regulation 1099/2009 EC. All animals, irrespective of method used, are treated humanely and with respect.

To meet customer demand, we do sell a range of branded halal and kosher meat in some stores. These are very clearly labelled as kosher and halal.¹²⁶

i. A reply was not received from Lidl as of 22nd October 2018.

Stakeholder position statements: Purchasers

¹²⁴ Brown, C. Asda, Senior Director Sustainability and Sourcing, Personal Communication 5th February 2018

¹²⁵ Garbutt, P. McDonald’s UK Agriculture Manager. Personal Communication 5th February 2018

¹²⁶ Sainsbury’s Animal health and Welfare Policy document [Accessed 7th February 2018]

<https://www.about.sainsburys.co.uk/~media/Files/S/Sainsburys/pdf-downloads/animal-health-and-welfare.pdf>

73. Lancashire Council voted to end the use of non-stunned meat in council-run schools in 2017.^{127, 128}
74. House of Commons and House of Lords catering purchase all meat and poultry from suppliers under an accredited farm assurance scheme. They hold a Food for Life Bronze Catering Mark from the Soil Association.¹²⁹

Parliamentary debate

13 April 2018 [Written Answers — Department for Environment, Food and Rural Affairs: Ritual Slaughter](#) Kerry McCarthy MP (lab): i) what percentage of animals killed for (a) the halal market and (b) the kosher market were pre-stunned in each year since 2010. ii) what percentage of non-stun meat produced in the **UK** is exported, and which countries is it exported to. ii) how many poultry were slaughtered by parameters not listed in EU legislation in each year since 2010.

George Eustice (Minister for Defra) response: The Department does not hold data on animals killed by different slaughter methods each year. Religious slaughter may only be carried out by Jews or Muslims for the food of Jews or Muslims. The Department does not hold data on what percentage of meat from non-stun religious slaughter is exported.

30 Jan 2018 [Written Answers — Department for Environment, Food and Rural Affairs: Ritual Slaughter](#)

George Eustice The Minister of State, Department for Environment, Food and Rural Affairs: The Government encourages the highest standards of welfare at slaughter. The Government would prefer all animals to be stunned before slaughter, but respects the right of the Jewish and Muslim communities to eat meat prepared in accordance with their religious beliefs.

We have stricter national rules aimed at reducing stress and providing protection for animals slaughtered in accordance with religious rites. These national rules include requirements for sheep, goats and bovines to be slaughtered immediately that they are restrained and not to be released from restraint until they are unconscious and at least 20 seconds have elapsed, in the case of sheep and goats, and at least 30 seconds have elapsed in the case of bovines.

¹²⁷ Review of the County Council's policy relating to the supply of Halal meat to schools by Lancashire County council's Learning and Skills – Start Well team
<http://council.lancashire.gov.uk/documents/s119452/Edit%20Report%20Review%20of%20the%20County%20Councils%20Policy%20relating%20to%20the%20Supply%20of%20Halal%20Meat%20to%20Schools.pdf> and Appendix A:
<http://council.lancashire.gov.uk/documents/s119453/Appendix%20A%20-%20Halal%20Meat%20Policy%20Review.pdf>

¹²⁸ Lancashire council bans schools from serving pupils non-stunned halal meat (2017) Farand, The Independent <http://www.independent.co.uk/news/uk/home-news/lancashire-council-halal-meat-non-stunned-ban-schools-pupils-animal-welfare-muslims-islam-a8023026.html>

¹²⁹ <https://intranet.parliament.uk/Documents/catering-outlets/restaurants-bars/commons-crs/Responsible-Catering/HoC-CS-Responsible%20Catering%202016.pdf>

This year the Government is introducing mandatory CCTV recording in slaughterhouses. This will further enable official veterinarians to monitor and verify animal welfare standards in the slaughterhouse and ensure strict adherence to stand still time rules

8 Dec 2017 [Written Answers — Department for Environment, Food and Rural Affairs: Slaughterhouses: Animal Welfare](#)

Kerry McCarthy MP (Lab): To ask the Secretary of State for Environment, Food and Rural Affairs, if he will launch an investigation into the variation in rates of animal welfare between (a) non-stun halal and (b) other abattoirs.

4 Dec 2017 [Written Answers — Department for Environment, Food and Rural Affairs: Slaughterhouses: Animal Welfare](#)

Kerry McCarthy MP (Lab): To ask the Secretary of State for Environment, Food and Rural Affairs, if the Government will ban non-stun animal slaughter.

25 May 2016 [Queen's Speech - Debate \(5th Day\)](#)

Lord Trees (Cross Bench): *"...there is good evidence that stunning removes unnecessary pain and, in so far as I understand the religious issues, modern stunning methods are compatible with historical religious requirements if the will is there among religious leaders. It is regrettable that the introduction of the Welfare of Animals at the Time of Killing (England) Regulations—the WATOK regulations—in November last year failed to include critical parameters to ensure adequate water-bath stunning of poultry prior to religious slaughter. It is also a matter of great regret that the number of sheep killed without stunning has risen between 2011 and 2013—just two years—by more than half a million animals, based on Food Standards Agency surveys. Irrespective of whether killing involves stunning or not, in order to ensure existing laws are observed at slaughter, compulsory CCTV should be introduced in all abattoirs and the stored record should be available for independent scrutiny."*

15 Dec 2015 [Welfare of Animals at the Time of Killing \(England\) Regulations 2015 — Motion to Regret](#)

Lord Hodgson: *"...this House regrets that, since the Welfare of Animals at the Time of Killing (England) Regulations 2015 do not in all cases specify parameters for electrical water-bath stunning, poultry in England will be afforded a less rigorous level of welfare at slaughter than available in Wales and Northern Ireland (SI 2015/1782)."*

4 Mar 2015 [Written Answers — Department for Environment, Food and Rural Affairs: Ritual Slaughter](#)

Frank Field MP: To ask the Secretary of State for Environment, Food and Rural Affairs, if she will take steps to prevent non-stun slaughter of animals

23 Feb 2015 [Backbench business — Animal Welfare \(Non-stun Slaughter\)](#)

David Jones MP: Why are such a high proportion of sheep and goats being killed by the non-stun method? The figure is 15%, as we have heard, whereas the Jewish and Muslim population of this country accounts for only some 5% of the total population.

4 Nov 2014 [Animal Slaughter \(Religious Methods\)](#)

Neil Parish MP (chair of all-party group on beef and lamb): *“It is the all-party group’s belief that labelling should be considered, and it should be on the basis of stun or non-stun methods—not halal versus kosher—because consumers are thought to have a sufficient understanding of what the terms “stunned” or “non-stunned” mean. The group believes, however, that more work can be done to clarify, for consumers of halal and kosher meat, and the wider public, what the terms entail, specifically. That applies particularly to halal, where there is disagreement about the permissibility of stunning, as I mentioned earlier.*

There is a danger that an outright ban on religious slaughter would not improve the welfare of animals at the point of slaughter. At the moment about 80% of the halal meat produced in this country has been stunned. Driving our halal and shechita meat industry abroad to countries without our robust animal welfare standards and our supply chain traceability might result in more animals being slaughtered without stunning.”

16 Jan 2014 [Grand committee - Animal Welfare: Methods of Slaughter](#)

Lord Trees: *“I make it clear that I am not asking in this debate for non-stun slaughter to be banned. I am not a believer in bans; I would rather that society collectively arrived at decisions about what is acceptable and what is not. However, I sincerely ask the Muslim and Jewish communities and their leaders to reflect and consider whether ancient practices, for which there were good reasons many hundreds of years ago, are necessary today. There are non-lethal, non-invasive methods of stunning, and even if there is disagreement on the extent or duration of pain perception, is it not time to adopt stunning to preclude the possibility of unnecessary suffering—as some Muslim food authorities have allowed?”*

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The Veterinary Policy Research Foundation was set up as a not-for-profit limited company in 2013. It receives donations from a number of different veterinary bodies and organisations (see website) with the principal aim of employing the Parliamentary Veterinary Intern (currently Gabrielle Laing) to carry out research to assist Lord Trees, as the only veterinary scientist in the UK Parliament.