Recommendations by the Chiropractic Professional Associations and The Royal College of Chiropractors following the Ionising Radiation Targeted Inspections by the Health and Safety Executive (HSE) January to March 2019.

The HSE met with the General Chiropractic Council (GCC), professional associations and The Royal College of Chiropractors in October 2018 and advised the profession that inspections were planned and explained what employers working with ionising radiation had to have in place.

The pro-active inspections were conducted to assess the compliance with the Ionising Radiation Regulations 2017 (IRR17), which came into force in January 2018. These regulations relate to the safety of the public and staff in respect to ionising radiation. The accompanying evaluation was published by HSE in October 2019 to inform the profession of the results of these site inspections.

Disappointingly, of the 49 inspections carried out, a number of breaches of the regulations were determined with an overall material breach rate for profession of 64%. The regulations where the highest breach rates were occurred related to risk assessments and restriction of exposure. Breaches of the regulations relating to information, instruction and training, local rules, Radiation Protection Supervisors (RPSs) and monitoring of designated areas also featured. Twelve improvement notices were served in total.

The HSE will begin another round of inspections in April 2020 and the profession now has an opportunity to reflect on the findings and make the necessary changes to ensure compliance before the next round of inspections commence. The following general recommendations informed by the HSE report have been made, however the list is not exhaustive and specific recommendations for those that have X-ray installations must be on an individual basis in respect of each practice and made in conjunction with the employer's own appointed Radiation Protection Advisor (RPA).

Recommendations:

1) An RPA and Medical Physics expert (MPE) must be appointed in writing by the employer, with the role fully explained and agreed between the parties.

2) The RPS appointed must have appropriate training and undertake a refresher course every three years (minimum).

3) There needs to be safe equipment use and employer documentation induction programs for any new member of staff. Refresher courses are then needed on a periodic basis to include patient, staff and public safety within the radiation controlled and supervised areas with respect to IRR17.

4) Risk assessments must be site-specific and developed in conjunction with the RPA. All staff must read and sign the risk assessments in acceptance. The RPA, as part of that process, will carry out an assessment of the shielding requirements and predicted exposures resulting from the work.

5) All sites will carry out environmental monitoring with the advice from the RPA and this will be repeated every three years or when there has been a significant increase in the workload or change in the structure of the areas. This monitoring will confirm the doses resulting from the work remain as expected.

6) The local rules shall include descriptions of: all staff roles and responsibilities, chain of command for dealing with incidents/patient queries, dealing with questions of pregnancy, exposure of young patients, dose assessments for staff and non-members of staff entering controlled areas and emergency procedures. Local rules will define the controlled and supervised areas following advice from the RPA.

7) The employer will carry out regular audits of console warning lights, lamps above doors, quality control testing, staff doses and incidents as well as other audits deemed appropriate by the employer and RPA.

8) Contingency plans for a radiation accident, or an identified risk such as fire, will be formulated with the RPA and need to be rehearsed by employees annually or when there is a significant change in work practice or protocols.

9) For staff working on multiple sites, training is required against each set of risk assessments and local rules on induction/thereafter.

If using monitoring badges, the total doses received by any individual across different employers or sites must be considered annually. Multiple employers need joint policies detailing how each employer will be informed of the total dose recorded for any individual in each monitoring period.

10) At least one dedicated meeting for ionising radiation safety matters should take place annually with all duty holders present. The employer's RPS should record a formal report of compliance with the Local Rules throughout the year, and it may also be a place for review of IRMER matters such as dose optimisation and shared learning regarding clinical justification of exposures (for example presenting any anonymised case studies of interest). This meeting could take place once amongst a group of practices if the employer has multiple sites

11) All employers need to have current registration with the HSE and, as part of that, must carry out a radon level search for the location. RPSs will review the HSE registration annually to ensure nothing has changed.

12) Any new radiological equipment purchases must be made in consultation with the RPA/MPE well in advance in order to ensure dose optimisation is considered before any equipment is purchased, rather than after the event.

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Appendix 1.

Summary of Identified Breaches of IRR17 on inspection.

Regulation 6: Registration with the HSE

- Not registered with HSE.

Regulation 8: Risk Assessments.

- Risk assessments not in place or insufficient particularly in relation to lack of information on dose rates or consideration of previous dosimetry.

Regulation 9: Restriction of Exposure.

- Poor restriction of exposure including poor shielding and restriction of potential dose to members of the public, designation of the controlled area and use of warning lights.

Regulation 13: Contingency Plans

- No contingency plans in place.

Regulation 15: Information, Instruction and training.

- Poor training of the RPS and/or lack of refresher training.

Regulation 16: Co-operation between employers.

- No formal handover procedure of the controlled area to service engineers for instance such as the use of an AXREM form.

Regulation 17: Designation of Controlled or Supervised Areas.

- Failure to designate a controlled area.
- Local rules insufficient or contradictory.
- No Radiation Protection Supervisor (RPS) appointed.

Regulation 19: Additional requirements for designated areas

- Lack of or inadequate signage to identify the controlled area.

Regulation 20: Monitoring of the Designated area.

- No environmental monitoring in and/or outside the controlled area.